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## FOREWORD



*Assalamu'alaikum Wr. Wbr. (Peace be upon you). Let us thanks to our Almighty, Allah SWT (Subhanahu Wa-Ta'ala), Who has bestowed us all the best blessings and prosperity. Peace may be upon to our Great Prophet Muhammad SAW (Salallahu 'Alaihi Wassalam or peace be upon him), his companions, his family, and his faithful and dutiful followers until the end of the world. Amien.*

*I am very glad to get the information that the EDUCARE-IJES journal is still able to be published regularly and responded by many scholars around the world. For issue of August 2014, the EDUCARE-IJES journal has been disseminating the articles that come, not only from the scholars of Indonesia but also from Malaysia, India, Zimbabwe, and Finland. Of course, for forthcoming issues, I hope also that articles issued by the EDUCARE-IJES journal will come from other countries around the world.*

*As we know that education is very important for the nation-state development. Progress and backwardness of the nation-state, based on the historical experiences, depend on the quality of education. For Indonesian people, education is driving force to get the progress, prosperity, and freedom. Because of that, in our Constitution 1945, the government of the Republic of Indonesia, on behalf of nation-state, has to develop the education for all Indonesian people. I think it is not only for Indonesia's case, other countries around the world also have the agendas that concern to develop the education as tool for building the nation-states.*

*Developing the education is very critical and, in order targeting the objectives, it has to be done based on the research of education. Of course, the field of education is large and it is multidimensional matters. What important here is that the results of research on education – including the critical ideas of education – should be appreciated and considered in planning and implementing the education programs, so that progress of education in the context of nation-state development is in the right track.*

*I think the findings of education published by the EDUCARE-IJES journal, for current issue, are very interesting. The Indonesian scholars have researched about two matters: (1) "the Effect of Self-Concept, Learning Habit, and Motive of Achievement toward the Learning Achievement"; and (2) "BIPA Learning Material Development for Empowering Thailand Students' Writing Competence". What important here is that self-motivation will force someone to attain the goal and objective. The achievement in mastery learning, in any field of education, will depend on the self-motivation of learners.*

*The Malaysian scholars concerned about: (1) "A Study on Transformational Leadership Behavior in a Higher Learning Institution"; (2) "Principals' Leadership Style and Stress with Teacher's Intention of Leaving the Teaching Profession"; (3) "Using Data Analysis Projects to Promote Statistical Thinking in an Introductory Statistics Course: A Basis for Curriculum Materials Development"; and (4) "the Geography Teacher Practices in Implementation of Formative Assessment: A Case Study". What I want to stress here is the fact that since the EDUCARE journal published in August 2008, the articles from Malaysia scholars were very dominant. It means that the culture of research dan publication in Malaysia, especially in higher education institution, is very active and dynamics. Indonesian scholars, I think, should be learn more from Malaysia and other developed countries on how to conduct the research actively and to disseminate the research result productively in the academic journals.*

*While the scholars of India talked about "A Comparative Study of the Attitudes of Muslim and Non-Muslim Prospective Teachers towards Teaching Profession". I think it is very interesting due to the findings revealed not significant differences in the attitudes of Muslim and Non-Muslim prospective teachers; whereas a significant difference was found between the attitudes of Muslim and Non-Muslim prospective teachers studying in private B.Ed. (Bachelor Education) institutions towards teaching profession. Muslim prospective teachers studying in private B.Ed. institutions had a more favourable attitude towards teaching profession as compared to Non-Muslim prospective teachers studying in private B.Ed. institutions. Really, for the UMP in Purwokerto, Central Java, it is inspiring due to the fact the UMP is one of the Islamic private higher education institution in Indonesia.*

*Scholars of Zimbabwe issued on "Exploring the Link between Moral Reasoning and Behavioral Action among Young Children in Zimbabwean". I think it is also very critical matters. A noble character is not based on solely what someone talked about (cognitive domain), but also it should be consistent with the attitude and behavior domains. For the Indonesian context, it is very critical related to the corruption cases as well as the abuses of power, however, conducted by scholar persons who have more knowledge and information. So, we still need the smart person that be supported by noble character (good in attitude and behavior).*

*And last but not least, the scholars of Finland researched about "Digestibility of Heat Treated Barley in Blue Fox and Mink". Although this research is not related to education matters, but behind message what will be told to us is the important things about caring to the animals. Environment, including the trees and animals, should be preserved and maintained by caring and sharing in order we can implement the sustainable development. As stated by Finland researchers, in line with the animals (mink and fox), that the use of carbohydrates as a part of the feed for farmed furbearers is advantageous, while production costs can be declined by not using so much fat and protein.*

*Finally, do enjoy reading the EDUCARE-IJES journal and hopefully you will derive much benefit from it. Wassalamu'alaikum Wr. Wbr. (peace be also upon you). **Dr. Haji Syamsuhadi Irsyad**, Rector of UMP in Purwokerto, Central Java; and Honorable Patron of the EDUCARE-IJES Journal in Bandung, West Java, Indonesia.*

EDMORE MBOKOCHENA, FUNGAI HAMILTON MUDZENERERE &  
ELIZABETH CHIKWIRI

## Exploring the Link between Moral Reasoning and Behavioral Action among Young Children in Zimbabwean

**ABSTRACT:** This study explored the link between moral reasoning and behavioral action among young Zimbabwean children aged between 9 and 13 years (grade 3 – grade 7). The ultimate aim of the study was to see if sound moral reasoning leads to sound behavioral action. Such a study takes lofty significance given moral ills, such as child sexual abuse currently pervading and disintegrating the Zimbabwean society. The survey research design was used. Participants, who completed a questionnaire on moral reasoning and behavioral action, were 120 at grade 3 – grade 7 pupils randomly selected from one school in one of Harare’s high density suburbs. The results of this study showed that for the majority of the pupils (83.3%), moral reasoning was not linked to behavioral action. While the majority (90%) reported that it was strong to talk during the teacher’s absence, most of the pupils (83.3%) said that they would not tell the teacher the truth, arguing that it was wrong to betray fellow pupils. More 12-13 years old (20.8%) than 9-11 years old (9.7%) felt it is necessary to tell the teacher the truth. The study helps those individuals and institutions dealing with children to be cautious about children’s testimonies since some of them lie. Furthermore, the results of this study task the society with the responsibility of ensuring that high moral values such as justice, fairness, truthfulness, trustworthiness, and so on are not only understood by children, but are also practiced by children if society is to remain habitable.

**KEY WORDS:** Moral, children, teacher, behavioral, reasoning, justice, fairness, truthfulness, trustworthiness, action, and Zimbabwean society.

### INTRODUCTION

The study investigated the link between moral reasoning and behavioral action among 9-13 years old, randomly selected from a school in one of Harare’s (Zimbabwe) high density suburbs. The ultimate aim of the study was to see if sound moral reasoning leads to sound behavioral action. Such a study takes lofty significance given moral ills, such as child sexual abuse currently pervading and disintegrating the Zimbabwean society.

While such a study not necessarily be an antidote to the societal ills presently being experienced in Zimbabwe and in other countries, it may presumably throw some light

on issues such as, for example, why significant people in society such as teachers, parents, and pastors are sometimes accused of physically and sexually molesting children. To the present writers, the incongruence between what some individuals are supposed to stand for and what those individuals do in practice should be real cause for concern that warrants investigation.

Furthermore, apart from the fact that, to the writers’ knowledge, no similar study has been conducted in Zimbabwe; this study is also critical in that, focusing on young children as it does, it helps the society to think about the best ways of bringing up children. For T.D. Mushoriwa (2014), what society must

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*About the Authors:* Edmore Mbokochena is a Lecturer at the Department of Psychology, Women’s University in Africa, Harare, Zimbabwe; Fungai Hamilton Mudzengerere is a Research Fellow at the National University of Science and Technology, Bulawayo, Zimbabwe; and Elizabeth Chikwiri is a Dean of Studies at the Women’s University in Africa, Harare, Zimbabwe. Corresponding e-mail: [eddiembok@gmail.com](mailto:eddiembok@gmail.com)

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remember is that a crab will find it extremely difficult to teach its young ones to walk straight because itself cannot walk straight.

## BACKGROUND AND LITERATURE REVIEW

The current study premised on L. Kohlberg's work on moral development and reasoning. L. Kohlberg (1969 and 1973) demonstrated an ordered acquisition of moral reasoning from early stages characterised by concern about rewards and punishments (stages 1 & 2) to the highest stages (5 & 6) characterised by the use of abstract principles. These abstract principles are used independently of societal rules to determine the most appropriate course of action in problematic situations (*cf* Pasupathi & Standinger, 2001; and Mikhail, 2010).

Several studies have shown that moral reasoning as a *function of cognitive skills* (Kohlberg, 1973; Colby & Kohlberg, 1987; Walker, 1989; and Armon & Dawson, 1997); *educational level* (Armon, 1984; Walker, 1986; Colby & Kohlberg, 1987; and Markoulis, 1989); and *age* (Armon & Dawson, 1997; and Pasupathi & Standinger, 2001). Given this argument, the present study assumed that older pupils (11-13 years old) who are in grades 6 and 7 were more likely to demonstrate higher moral reasoning than younger pupils (9-11 years old).

Generally, theories of morality suggest that a person with high moral reasoning should engage in acceptable moral actions. This is so because, according to M. Pasupathi & U.M. Standinger (2001), moral reasoning, which indicates which course of action is moral in problematic situations, should be by definition a necessary and sufficient condition for acceptable actions. Thus, in principle, moral reasoning should be a behavioral guideline (Greene *et al.*, 2009).

However, in practice, moral reasoning does not seem a sufficient condition for choosing and engaging in acceptable moral actions as demonstrated by a number of people who fail to be honest, principled, sincere, loyal, or trustworthy in situations with competing goals. People may know the right thing, but they go on to do the wrong thing. This suggests

that moral reasoning is perhaps not linked to behavioral action.

According to researches as those by M. Nisan & L. Kohlberg (1982) and L.J. Walker (1986), a number of people fail to attain L. Kohlberg's highest moral reasoning stage as a result of, among other things, one's environmental experiences and level of education. If these research results are accepted, it may mean that people with poor/wrong environmental experiences and those with little or no education often make wrong choices due to their failure to attain L. Kohlberg's principled moral reasoning. However, what is baffling is that even people with "appropriate" environmental experiences and high educational qualifications sometimes make wrong moral choices (Paxton & Greene, 2010).

For P.B. Baltes, J. Smith & U.M. Standinger (1992 and 2000), by definition, one's moral reasoning capabilities should dictate and direct one's social and moral responsibilities, obligations, and actions towards oneself, others, and society at large not for now, but also for the future. Following this logic, moral reasoning should therefore be an important definer of behavioral action yet; in some cases this is not what obtains, causing increasing conceptual difficulty regarding the link between moral reasoning and behavioral action. It is against this backdrop that the present study set out to explore the link between moral reasoning and behavioral action to see if they are in any way related.

## METHOD

The present study was premised on the work of the researchers in this field such as L. Kohlberg (1969 and 1973), where subjects were presented with a moral dilemma as a way of assessing their level of moral reasoning. To this effect, the present research owes much to the pilot studies in this field, in terms of both methodological procedures and instrumentation.

The survey research design was employed in this study. Surveys have the advantage of allowing the use of relatively large sample as was the case in this study (N = 120). For D.B. Van Dalen (1979), surveys also have

**Table 1:**  
Pupils' Responses to be Questionnaire Items by Age and Grade (N = 120)

ITEM	RESPONSES					
	9 – 11 Yrs Old (G 3-5) N = 72		12-13 Yrs Old (G 6-7) N = 48		Total N = 120	
	Yes	No	Yes	No	Yes	No
1. Pupils who talked during the teacher's absence did a wrong thing.	67 (93.1%)	5 (6.9%)	41 (85%)	7 (15%)	108 (90%)	12 (10%)
	N = 72		N = 48		N = 120	
2. (a) I will tell the teacher that some talked, but I will not reveal their names.	22 (30.6%)		8 (16.7%)		30 (25%)	
(b) I will tell her that nobody talked.	40 (55.5%)		30 (62.5%)		70 (58.3%)	
(c) I will tell her that some talked and I will reveal their names.	7 (9.7%)		10 (20.8%)		17 (14.2%)	
(d) I am not sure of what I will tell he teacher.	3 (4.2%)		0 (0%)		3 (2.5%)	
<b>Total</b>	<b>72</b> <b>(100%)</b>		<b>48</b> <b>(100%)</b>		<b>120</b> <b>(100%)</b>	

the advantage of allowing the collection of detailed descriptions of phenomena and trends in order to see and assess how they can be improved. To this end, it was the intention of the current study to explore the extent to which moral reasoning relates to behavioral action with the ultimate aim of improving this relationship for the benefit of society.

The study sample comprised 120 pupils (9-13 years old) randomly selected from one school in one of Harare's high density suburbs. These pupils, randomly drawn from grade 3 to grade 7 (24 from each grade) were placed into two groups: middle junior (grade 3-5) and upper junior (grade 6-7) in order to see if age and level of education would influence one's moral reasoning and choice of action.

A questionnaire based on a moral dilemma originated by D. Brugman *et al.* (2003) was the instrument used to assess how the pupils' level of moral reasoning was linked to their choices of action. A questionnaire instead of the L. Kohlberg type interview procedure was preferred in order to reduce the influence of the investigators on the subjects' responses. The questionnaire was first pre-tested in a pilot study and after the pilot-testing and adaptation, it was administered to the target sample (N = 120). The questionnaire basically asked the subjects to respond to a story that contained a moral dilemma as shown below. Through the subjects' responses, the investigators were

able to identify the subjects' level of moral reasoning and how it related to their choices of action.

**The Story:**

*A teacher known for her strictness had to go out from the classroom leaving her pupils writing a test. She asked the class-monitor, who was loved by both the teacher and the pupils, to ensure that his classmates did not talk. During the teacher's absence, some of the pupils talked.*

**Tasks:**

1. Pupils who talked during the teacher's absence did a wrong thing. Yes/No.

Give a reason for your answer: .....

.....

.....

.....

2. If you were the class monitor, what would you tell the teacher on her return?

- (a) That some pupils talked, but I will not reveal their names.
- (b) That nobody talked.
- (c) That some pupils talked and I will reveal their names.
- (d) Not sure of what I will tell the teacher.

Give a reason for your answer: .....

.....

.....

.....

**RESULTS AND DISCUSSIONS**

Collected data were key-punched for analysis and the results are shown in table 1.

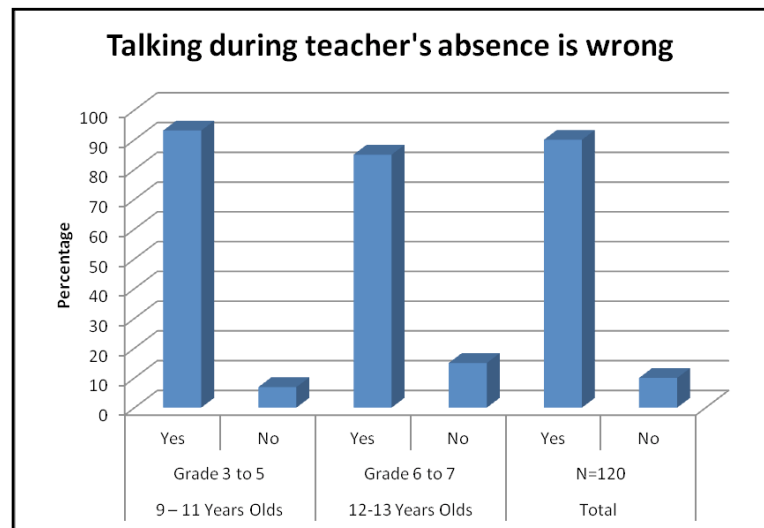
Table 1 and figure 1 indicate that more 9-11 years old (93.1%) than 12-13 years old (85%) felt that it was wrong to talk during the teachers' absence, especially when writing a test. Though the difference between 9-11 years old and the 12-13 years old was marginal (figure 2 and figure 4), the greater percentage among the 9-11 years old could be a result of the fact that, according to L. Kohlberg (1969), young children tend to take rules as divine-given and as such they should not be broken.

To this extent, a very significant percentage (93.1%) of the 9-11 years old felt that it was wrong to talk during the teacher's absence. Most of them wrote that nobody is allowed to talk in a test. In this sense, therefore, results established by early researchers in this field such as those by L. Kohlberg (1969 and 1973) and M. Nisan & L. Kohlberg (1982) hold up well in this study.

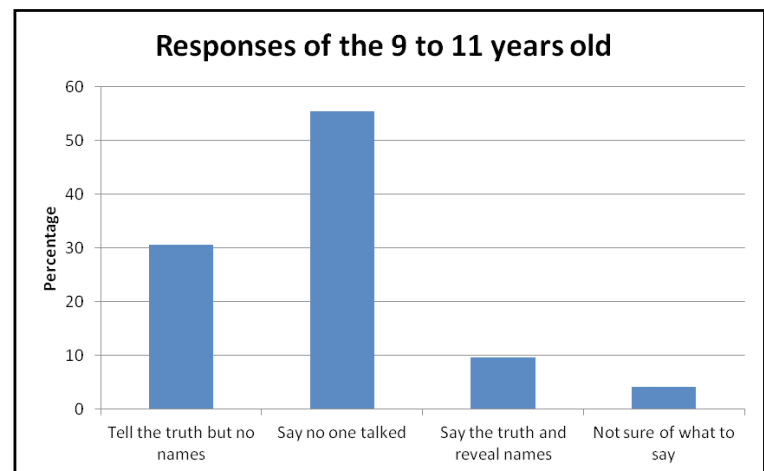
From table 1, the results of this study also show that overall, 86.1% of the 9-11 years old would not tell the teacher the truth; while 79.2% of the 12-13 years old felt the same. Thus, in keeping with findings from previous research, for example L. Kohlberg (1973), these results indicate moral thinking as representing qualitative shifts in modes of moral reasoning. Older pupils (20.8%) felt it necessary to tell the truth than the 9-11 years old (9.7%).

From figure 4, some of the 12-13 years old wrote that telling the truth was necessary not only for maintaining the trust by both the teacher and other pupils, but also for showing other pupils that it is morally wrong to lie. These results suggest that some children, just like some adults, lie (McDevitt & Ormrod, 2007).

Figure 3 shows that 58% of the students will not tell the truth as compared to 14% who will say exactly what had happened. An in-depth



**Figure 1:**  
Pupils' View of Talking in Class during the Teacher's Absence



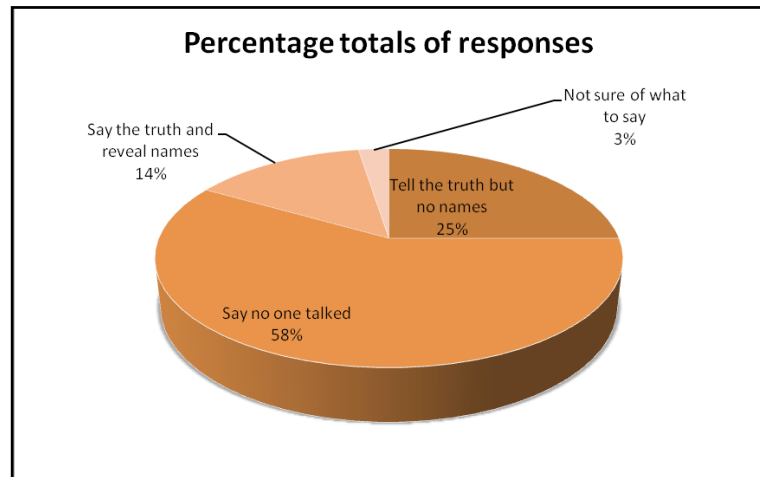
**Figure 2:**  
Responses of the 9 to 11 Years Old

analysis of the results (table 1) indicates that, taken together, 90% of the pupils in this study acknowledge a wrong (talking in a test during the teacher's absence) but what is disturbing and indeed chilling is the fact that in item 2, which required the respondents to indicate what they would say to the teacher on her return, only 14.2% indicated that they would tell the teacher that some pupils talked and would reveal their names. While 25% said that they would tell the teacher that some pupils talked but without revealing their names, 2.5% were undecided and as high as 58.3% felt that they would simply tell the teacher that nobody talked.

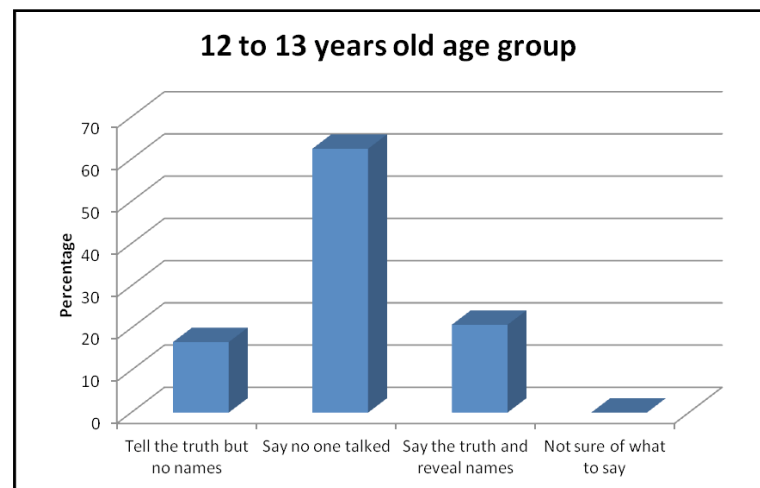
The above results suggest that in many people, there is virtually no link between moral reasoning and action. Ninety percent of the pupils said that it was wrong to talk; yet, an appallingly high percentage of the same pupils (83.3%) deliberately chose not to tell the teacher the truth. This supports N. Paharia *et al.* (2009)'s suggestion that while people may know what is morally right wrong, when it comes to action, as shown by the reasons given by the pupils, considerations such as protecting one's friend, oneself, one's interests, and so on tend to take priority. Some of the pupils wrote that since the teacher is reported to be strict, telling her the truth would put the pupils into trouble. Others even argued that it was morally wrong to betray a friend.

To the present writers, results of this study can be legitimately extrapolated to the wider society. If this is accepted, then these results perhaps explain why, for example, many people, including highly placed people such as teachers, parents, and pastors, are involved in acts of rape or child abuse. Morally, they know what is right but when it comes to action, they make the wrong choice, especially if one does not give a second thought to intended action (Bucciarelli, Khemlani & Johnson-Laird, 2008).

For A. Colby *et al.* (1983), people should realise that the most critical features for any problem situation tend to be removed from moral considerations. If this be true, then it is a mistake to over-trust anybody for they may make wrong choices in their actions. In fact, studies such as those by J.R. Rest (1986) and A. Colby & W. Damon (1992) have demonstrated that in temptation situations, many people fail to apply acquired moral principles unless they have strong person qualities such as a strong sense of justice and fairness.



**Figure 3:**  
Responses in Total Percentage



**Figure 4:**  
Responses from the 12 to 13 Years Age Group

The results reported above seem to be inconsistent with notions of moral reasoning as cognition about more values, ethics, and situations in which individual interests and desires are sacrificed for collective good (Rest, 1983 and 1986; and Pasupathi & Standinger, 2001). This means that moral reasoning should result in desirable behaviour patterns, not in merely judging issues and events as good and bad, but also in choosing a course of action that respects human dignity (Dolph & Lycan, 2008).

## CONCLUSION

The results of this study showed that for the majority of pupils (83.3%), moral reasoning

was not linked to behavioral action. Although there is some conceptual overlap between moral reasoning and behavioral action, to many people, moral reasoning does not necessarily invoke feelings of fairness and justice, hence they may engage in immoral actions. While the majority (90%) reported that it was wrong to talk, many of the pupils (83.3%), especially the 9-11 years old indicated that they would not tell the teacher the truth.

By extension, the results of this study also suggest that children lie, hence, individuals and institutions such as schools and courts that deal with children, should take and use children's testimonies with caution. Furthermore, the results of this study task the society with the responsibility of ensuring that high moral values such as justice, fairness, truthfulness, trustworthiness, and so on are not only understood by children, but are also practiced by children if society is to remain habitable.

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NORSHIDAH NORDIN

## Do Academic Leaders Matters? A Study on Transformational Leadership Behavior in a Higher Learning Institution

**ABSTRACT:** The effects of globalization, advancement of information and communication technology, together with economic volatile situations have forced academic institutions to adapt to strategic changes, so that they could remain relevant and competitive advantages. Hence, effective and efficient leadership behavior has become more critical than ever. Previous studies showed that transformational leaders' support is seemed to be an essential factor in promoting institutional success. However, to what extend this is true, especially in the local public universities. Therefore, this study was intended to examine the nature of transformational leadership behavior and its augmentation effects as perceived by the academics in a Malaysian higher educational institution. Using a stage cluster sampling, a total of 169 academic staff from UiTM (Universiti Teknologi MARA or MARA University of Technology) in Shah Alam, Selangor, Malaysia participated in the study. The result revealed the academic staff perceived that their superiors exhibited a transactional leadership style rather than transformational leadership style. The study also revealed that augmentation of transformational leadership was moderate. Hence, this study has several practical implications for policy makers and academic leaders in higher learning institutions to provide leadership program, particularly in making organizational change efforts successful.

**KEY WORDS:** Leadership, globalization, transformational, transactional, effectiveness, extra-effort, higher learning institutions, and satisfaction.

### INTRODUCTION

Global trends have shown that higher learning institutions need to reform their mission and to better utilise their academia, in order to meet the challenges posed to higher education in the 21<sup>st</sup> century (Wilkenson *et al.* eds., 2004). In this context, academic institutions, including Malaysia, are progressively undergoing a process of innovation and institutional reform (Sadeghi & Lope Pihie, 2012). Nevertheless, in the process of transformation, J. Ford & R. Backoff (1988) stated the critical aspects that the institutions need to handle seriously are the issues of governance, management, and functioning of the organizations.

Given this juncture, in order for the higher learning institutions to remain relevant and competitive, the Malaysian National Higher

Strategic Plan (2020) has expressed a vision to transform its academic institutions. Thus, to realize this vision, developing leadership is one of the key elements in achieving the university agenda (Sirat, Ahmad & Azman, 2012). In this sense, academic leaders such as the universities administrators, deans, academic coordinators, and even head of the programs played important roles in fostering a culture of excellence to attract the most able to motivate the existing academics. On the contrary, Morshidi Sirat, Abdul Razak Ahmad & Norzaini Azman (2012) found that identifying and developing potential leaders is often inadequate. Therefore, the leaders in the universities were often chosen by default that is neither they were trained to be leaders nor aware of performance expectations (Heuer, 2003:740).

Hence, in bringing about a change event,

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*About the Author:* Norshidah Nordin is a Lecturer at the Faculty of Education UiTM (Universiti Teknologi MARA), Seksyen 17, 40200 Shah Alam, Selangor Darul Ehsan, Malaysia. For academic purposes, the author can be contacted via mobile phone at: +60133373410 or via e-mail at: [shidah147@gmail.com](mailto:shidah147@gmail.com)

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Asma *et al.* noted that academic leaders need to know the values of their workforce and identify work habits which can strengthen or weaken change initiatives (cited in Nordin, 2013). Although, it is sheer from literature that leadership is the key to effective educational reform (Hofstede, 1980; Bass, 1998; and Harker & Sharma, 2000); it seems that leadership for managing transformation and change is imperative and critically needed. Besides, previous studies showed that transformational leaders' support is seemed to be an essential factor in promoting effective organization (Bass & Avolio, 1997; Bass *et al.*, 2003; and de Cremer & van Knippenberg, 2005). However, to what extend this is true, especially in the local public universities.

### THE NATURE OF TRANSFORMATIONAL LEADERSHIP BEHAVIOR

The original ideas of transformational and transactional leadership theory was first developed by J.M. Burns (1978) based on political scenario; and later, B.M. Bass (1985) refined this theory and introduced it into organizational context. Nevertheless, B.M. Bass (1995) and B.M. Bass & B.J. Avolio (1997) extended the theory of leadership that consists of transformational, transactional, laissez-faire, and augmentation effects. According to B.M. Bass (1985), transactional leadership develops from the exchange process between leaders and subordinates, wherein the leader provides reward exchanges for subordinates' performance. On the other hand, transformational leadership behaviors go beyond transactional leadership, and motivate followers to identify with the leaders' vision and sacrifice their interest for that of the group or the organization.

In addition, B.M. Bass (1985) defines the transformational leaders as one who stimulates awareness and interest in the group or organization, increases the self-assurances and confidence of individuals or groups, and attempts to move the concerns of subordinates to achievement and growth rather than existence. These leaders search for new ways of working, seek opportunities, and prefer effectiveness to efficiency (*cf* Lowe, Kroeck & Sivasubramaniam, 1996).

B.M. Bass (1985) again described transformational leadership behavior as having the following traits in table 1.

On the other hand, by comparing transformational leadership behavior, B.M. Bass (1985) described transactional leaders as one who prefers a leader member-exchange relationship, whereby the leader fulfils the needs of the followers in exchange for their performance meeting basic expectations. This leader has a preference for risk avoidance to allow them to achieve goals. B.M. Bass & F.J. Yammarino (1991) summarized several different types of behavior inherent in transactional leadership in table 2.

Transactional and transformational leadership are known to bring about great attention among many scholars in leadership studies. Adopting either transformational or transactional leadership behavior helps in the success for the organization effectiveness (Laojavichien, Fredendall & Cantrell, 2009). Exclusively, both transformational leadership and transactional leadership assist in predicting subordinates' satisfaction with their leaders (Bennett, 2009).

Nevertheless, there were some instances where both factors do not contribute to satisfaction to subordinates and partly provide as explanatory variables. For example, certain studies found that it is the combination of the transactional leadership's contingent rewards and the transformational leadership's care for individual needs that contribute to a dynamic and contented workforce (Chen, Beck & Amos, 2005). Another research similarly concluded that the difficult intricacy of the work and job objectives can be best monitored and administered by the transactional leadership, while the transformational leadership allows such complex process to become less daunting and more acceptable (Jansen, Vera & Crossan, 2009).

***On the Transformational Leadership Behavior and Gender.*** Literature noted that higher education environment has only been begun to accommodate women in its classrooms, position of power, literature and language, and facilities (Ingleton, 1995). Nevertheless, R.G. Lord, C.L. De Vader & G.M. Alliger (1986) asserted that relationship of masculinity-

**Table 1:**  
Characteristics of Transformational Leadership Behavior

Transformational Leadership Behavior	Characteristics
Charismatic behavior.	Leaders provide vision and a sense of vision, mission; instill pride and gain respect and trust.
Idealized influence.	Leaders behave as role models for their followers. They demonstrates high standards of ethical and moral conduct and avoids using power for personal gain.
Inspirational motivation.	Leaders are inspiring and motivating in the eyes of their subordinates by providing meaning and challenges to their followers' work.
Intellectual stimulations.	Leader arouses in subordinates an awareness of problems, recognition of their beliefs and values, and an awareness of their own thoughts and imagination.
Individualized consideration.	Leaders give personal attention, treat each employee individually, and coach and advise him/her.

**Table 2:**  
Characteristics of Transactional Leadership Behavior

Transactional Leadership Behavior	Characteristics
Contingent reward.	Leaders provide reward are for good effort, good performance, and to recognize accomplishments.
Management by exception (active).	Leaders involve in monitoring subordinates and correcting actions, when necessary, to ensure that work is carried out effectively.
Management by exception (passive).	Leaders involve intervening only if standards are not deviations from acceptable performance standards.

femininity is an important personality trait in forming leadership perceptions.

Studies related leadership behaviour and gender difference were numerous (Gregory, 1990; Bass & Avolio, 1997; and Anderson *et al.*, 2006). For example, a study done by S. Kawatra & V.R. Krishnan (2004) found that feminine leadership enhances people-orientation, collaboration, and team-orientation; and reduces aggressiveness, competitiveness, and results-orientation. Parallel, B.M. Bass & B.J. Avolio (1997) suggested that women managers, have more idealized influence, are more inspirational and individually considerate than men. Men are higher in management-by-exception and *laissez-faire* leadership, both being less pro-active styles and linked to less effective outcomes.

On the contrary, a study done by A.H. Eagly & S.J. Karau (1991) showed that male focused more on task-oriented aspects of group process than female; and women focused more on interpersonal aspects. However, A. Gregory (1990) claimed that there was no difference

between leadership style and gender. On the same note, T.W. Kent *et al.* (2010) found that men and women leaders behave as leaders in the same way. In sum, many results related to leadership style and gender were inconsistent (Karau & Eagly, 1999; and Kim & Shim, 2003). However, there were studies looked at the specific behaviours employed by male and female, particularly in a local context.

***On the Transformational Leadership Behavior and its Effectiveness Leadership Outcomes.***

One of the essentials elements of leadership that provides toward leadership effectiveness is the style of the leaders (Sadeghi & Lope Pihie, 2012). A leadership style is a relatively stable pattern or behavior display by leaders (Eagly & Johannesen-Schmidt, 2001); while guiding employees at workplace towards organizational achieving goals (Certo & Certo, 2006).

Theories in transformational leadership, in particular, have highlighted the importance of leadership being able to cooperate with the leader towards collective goals and personal

involvement in the job (Burns, 1978; Shamir, House & Arthur, 1993; and Bass, 1995). Accordingly, identifying leader's abilities to promote positive attitudes and behavior towards job and the organization may be of great importance to the effective functioning of the organizations (Dirks & Ferrin, 2002).

Hence, transformational leadership behavior has been judged to be important because of its connection with effective leaders. In this context, F. Molero *et al.* (2007) stated that one of the main predictions of the model of B.M. Bass (1985 and 1998) is termed as *augmentation effect*. T.A. Judge & R.F. Piccolo (2004) suggested that augmentation is something to amplify or extend.

Nonetheless, literature showed that this effect of transformational leadership increases the explanatory capacity of transactional leadership to predict followers' satisfaction and achievement (Waldman, Bass & Yammarino, 1990; Avolio & Howell, 1992; and Jansen, Vera & Crossan, 2009). B.M. Bass (1998) quoted also that transactions are at the base of transformations. In fact, transactional leadership results in followers meeting expectations, upon which their end of the bargain is fulfilled and they are rewarded accordingly.

On the other hand, transformational leadership is required so that it could motivate employees to move beyond expectations. Therefore, without the foundation of transactional leadership, transformational effects may not be possible (Judge & Piccolo, 2004). In sum, B.M. Bass *et al.* (2003) suggested that transformational leaders are expected to enhance the performance capacity of their followers by setting higher expectations and generating a greater willingness to address more difficult challenges. Transactional contingent reward leadership should also relate positively to performance in that such leaders clarify expectations and recognize achievements that positively contribute to higher levels of effort and performance.

Given this juncture, leaders who employ in transformational behavior could produce many positive outcomes. Indeed, empirical evidence has suggested that the positive effect of transformational leadership on effectiveness

and performance is connected to outcomes that most organizations, individuals, and leaders probably would value (Judge & Piccolo, 2004; and Burke *et al.*, 2006).

Hence, in this study, the augmentation effects of transformational leadership was proposed by B.M. Bass (1995), which are individual extra effort, job satisfaction, and perceived unit effectiveness. Extra effort is related to extra roles made by the subordinates to fulfill a task or goal, because of the leadership behavior of their superior. Extra effort means going beyond expectation, where subordinates are willing to do more than the expectations set by the superiors. The element of unit effectiveness means the capability of the superior in executing their tasks and leading the subordinates to meet the goal of the division. The subordinate perceived that their leaders as effective to them and to the unit as well. Job satisfaction represents subordinates satisfaction towards their superior in approaching their day to day job.

B.M. Bass (1995) explained that the dimensions involved in measuring job satisfaction are the methods used in leading and working with subordinates in a satisfactory manner. Literature showed that there were strong correlations between scores on *transformational leadership and extra effort* (Bycio, Hackett & Allen, 1995); and *performance evaluations* (Hater & Bass, 1988). Besides, transformational leadership appears to produce higher performance *at the group* (Sosik, Avolio & Kahai, 1997); and *organization or business unit* (Howell & Avolio, 1993) levels as well. As a result of these positive effects, transformational leaders should be rated as more effective by others in a position to observe their behavior.

A study done by F. Molero *et al.* (2007) revealed a positive relationship between transformational leadership and augmentation effects. However, R.P. Vecchio, J.E. Justin & C.L. Pearce (2008) carried out a study and collected samples from 179 high school teachers and their principals were examined with hierarchical regression analysis. Augmentation analysis indicated that transactional leadership had a stronger role in explaining unique criterion variance beyond the contribution of transformational

leadership, than did transformational leadership relative to transactional leadership.

Having much said about transformational leadership and its impact of organizational effectiveness and outcomes, conversely, little is known about preparing effective academic leadership in the contexts of higher educational institutions (Bolman & Deal, 1992). Besides, according to P. Trivellas & D. Dargenidou (2009), leadership in higher learning settings is problematic due to dual systems, conflicts between professional and administrative authority, the unclear goals and other special properties of normative and professional organizations.

Nevertheless, academic leaders and departments play important roles in the success of institutions of higher education (Coats, 2000). Nonetheless, literature on leadership at higher educational institution is relatively small (Bass, 1995), particularly in Malaysian higher education institutions (Lo, Ramayah & de Run, 2010). Therefore, this study was intended to investigate the nature of leadership behavior exhibited by the superior as perceived by the academic staff in a higher learning institution.

## OBJECTIVE OF THE STUDY AND METHODS

The objectives of the study were four-folds, namely to determine: (1) leadership behavior exhibit among the superior as perceived by the academic staff of UiTM or *Universiti Teknologi MARA* in Shah Alam, Selangor Darul Ehsan, Malaysia; (2) the differences between leadership behavior and gender; (3) the level effective leadership outcomes or augmentation effect of leadership behavior on academic staff of UiTM; and (4) the relationship between transformational and transactional leadership behavior on leadership outcomes.

This study employed a survey method using cross sectional research design. A self report questionnaire was used to gather information related to the objectives of the study. This study was based on a conceptual framework that combines part of the adapted theory of transformational leadership theory (Bass, 1985). The perceived leadership behavior is reflected in the transformational leadership theory (Bass, 1985). An instrument called the

Multifactor Leadership style Questionnaire (MLQ-5x form) was developed from B.M. Bass & B.J. Avolio (1997); and used in the study.

The instrument consisted of 45 items which measured the full-range of leadership styles and behaviors, namely Transformational Leadership, Transactional Leadership, and Augmentation Effect among the Subordinates. The leaders' behaviors depicted in each item were measured using 5-point scale, where 4 = "frequently, if not always"; 3 = "fairly often"; 2 = "sometimes"; 1 = "once in a while"; and 0 = "not at all". The MLQ is strongly predictive of leader performance (Bass, 1995).

The constructs of effective leadership outcomes in this study were measured using augmentation effects towards leadership behavior of the superior as perceived by the academic staff of UiTM (*Universiti Teknologi MARA* or MARA University of Technology) in Shah Alam, Selangor Darul Ehsan, Malaysia. The augmentation effects were individual extra effort, job satisfaction, and leader effectiveness. Sample items for each respective subscale would be, "Uses method of leadership that is satisfying" and "Gets me to more than I expected to do", is effective in meeting my job-related needs.

The samples were drawn from the academics of UiTM from main and branch campuses of the Malaysian peninsula. Hence, using R.V. Krejcie & D.W. Morgan (1970)'s table, a sample size of 357 was determined. However, a total of 169 academics participated in this study. These academic staffs consist of 36% males and 64% females from difference disciplines. The mean age of the respondents was 38 years old.

## FINDINGS AND DISCUSSIONS

**Objective 1: Analysis on the perceived leadership behavior exhibit by the superior of UiTM.** Table 3 displays the transformational leadership behavior of the superior as perceived by the academic staff of UiTM (*Universiti Teknologi MARA* or MARA University of Technology) in Shah Alam, Selangor Darul Ehsan, Malaysia. The overall mean scores showed that the academic staff of UiTM perceived that their superior exhibit a moderate transformational leadership behavior ( $M = 2.15$ ,  $SD = 1.11$ ).

**Table 3:**  
Perceived Transformational Leadership Behavior Exhibit by the Superior of UiTM

Transformational Leadership	Mean	SD (Standard Deviation)
<b>• Idealized influenced (attributed):</b>		
1. Instills pride in me for being associated with him/her	1.99	1.219
2. Goes beyond self-interest for the good of the group	2.05	1.231
3. Acts in ways that builds my respect	2.19	1.158
4. Displays a sense of power	2.50	1.049
Average mean scores	<b>2.18</b>	<b>1.16</b>
<b>• Idealized influenced (behavior):</b>		
1. Talks about him/her most important values and beliefs	2.11	1.134
2. Specifies the importance of having a strong sense of purpose	2.22	1.093
3. Considers the moral and ethical consequences of decisions	2.45	1.163
4. Emphasize the importance of having collective sense of mission	2.27	1.091
Average mean scores	<b>2.26</b>	<b>1.12</b>
<b>• Inspirational motivation:</b>		
1. Talks optimistically about the future	2.50	1.004
2. Talks enthusiastically about what needs to be accomplished	2.50	1.080
3. Articulates a compelling vision of the future	2.44	1.061
4. Expresses confidence that goals will be achieved	2.45	1.014
Average mean score	<b>2.47</b>	<b>1.03</b>
<b>• Intellectual stimulation:</b>		
1. Re-examine critical assumptions to questions whether they are appropriate	1.87	.988
2. Seeks differing perspectives when solving problems	2.22	1.050
3. Gets me a look at problems from many different angles	2.02	1.132
4. Suggests new ways of looking at how to complete assignments	1.46	1.219
Average mean score	<b>1.89</b>	<b>1.09</b>
<b>• Individual consideration:</b>		
1. Spends time teaching and coaching	2.02	1.205
2. Treats me as individual rather than just a member of a group	1.95	1.182
3. Considers me as having differing needs, abilities and aspirations from others	1.88	1.127
4. Helps me to develop my strengths	2.04	1.172
Average mean score	<b>1.97</b>	<b>1.17</b>
Overall average mean scores	<b>2.15</b>	<b>1.11</b>

Mean indicator: low = 0 – 1.33; moderate = 1.34 – 2.67; and high = 2.68 – 4.00.

The result showed that all the components in transformational leadership were moderate. However, the finding revealed that among the five dimensions of transformational leadership behavior, inspirational motivation had the highest mean score (M = 2.47, SD = 1.03); followed by idealized influenced behavior (M = 2.26, SD = 1.12); idealized influenced behavior (M = 2.18, SD = 1.16); and the least mean score intellectual stimulation (M = 1.89, SD = 1.09).

This finding, as showed in table 3, suggests that the academic staff of UiTM (*Universiti Teknologi MARA* or MARA University of

Technology) perceived that their superior to some extend are inspiring and motivating, providing meaning and challenges to their followers' work. However, on the other end, they perceived that their leaders were lacked of innovation and creativity in leading their subordinates.

Further analysis was carried out to examine the nature of transactional leadership behavior as perceived by the academic staff of UiTM as shown in table 4.

Table 4 demonstrates the transactional leadership behavior of the superior as perceived by the academic staff of UiTM

**Table 4:**  
Perceived Transactional Leadership Behavior Exhibit by the Superior of UiTM

Transactional Leadership Behavior	Mean	SD (Standard Deviation)
<b>• Contingent reward:</b>		
1. Provides me with assistance in exchange for my effort	1.90	1.052
2. Discuss in specific terms who is responsible for achieving performance targets	2.24	1.074
3. Makes clear what one can expect to receive when performance goals are achieved	2.14	1.109
4. Expresses satisfaction when I meet expectation	2.27	1.187
Average mean score	<b>2.13</b>	<b>1.105</b>
<b>• Management by exception (active):</b>		
1. Focuses attention on irregularities, mistakes, exceptions and deviations from standards	1.98	1.160
2. Concentrate his/her full attention on dealing with mistake, complaints and failures	2.37	1.135
3. Keep tracks of all mistake	2.26	1.131
4. Directs my attention towards failures to meet standard	2.33	1.078
Average mean score	<b>2.23</b>	<b>1.12</b>
<b>• Management by exception (passive):</b>		
1. Fails to interfere until problems become serious	1.50	1.130
2. Waits for things to go wrong before taking action	1.50	1.256
3. Shows that he /she is firm believe in 'if it isn't broke, don't fix it	1.51	1.169
4. Demonstrates that problems must become chronic before taking action	2.19	1.158
Average mean score	<b>1.52</b>	<b>1.17</b>
Overall mean scores	<b>2.28</b>	<b>1.13</b>

Mean indicator: low = 0 – 1.33; moderate = 1.34 – 2.67; and high = 2.68 – 4.00.

(Universiti Teknologi MARA or MARA University of Technology). The findings showed that all dimensions in the transactional components mean scores were moderate. However, the result illustrates that dimension of management by exception (active) has the highest mean score (M = 2.23, SD = 1.12). On the other hand, the least mean score was management by exception passive (M = 1.52, SD = 1.17).

This result suggests that the respondents perceived that their leaders watch closely for mistakes, take corrective action before the subordinates make severe error to happen (Judge & Piccolo, 2004; and Northouse, 2007). This study also supports the study done by Amir Sadeghi & Zaidatol Akmaliah Lope Pihie (2012). Nevertheless, the overall mean score showed that academic staff of UiTM perceived that their leaders were slightly more towards transactional leadership behavior (M = 2.28, SD = 1.13) as compared to transformational leadership behavior (M =

2.15, SD = 1.11). In other words, this study reflects that the respondents perceived that their leaders clarify followers' responsibilities, performances objectives, and their tasks must be completed (Epitropaki & Martin, 2005).

**Objective 2: Analysis on the differences between leadership behavior and gender.** Based on the independent t-test shown in table 5, there was no significant differences in leadership behavior base on respondents' place of hometown; where transformational leaders (t = .892, p = 0.374) and transactional leaders (t = -.1298, p = .196). Therefore, the result indicates that gender, i.e. whether the females or males, do not show any significant effect on leadership behavior. This study is parallel to research done by A. Gregory (1990).

**Objective 3: Analysis on the level of effective leadership outcomes among the academic staff.** Table 6 showed the distribution of mean scores for leadership outcomes (augmentation effects) towards the leadership style of respondents' immediate superior. In term of augmentation

**Table 5:**  
Independent t-test between Leadership Behavior and Gender

	N	Mean	SD	t	df	p
<b>Transformational:</b>						
Male	61	2.2572	.83105	.892	166	.374
Female	107	2.1417	.79285			
<b>Transaction:</b>						
Male	61	2.2062	.52538	-1.298	166	.196
Female	107	2.32207	.56363			

**Table 6:**  
The Level of Effective Leadership Outcomes

Augmentation Effects by	Mean	SD (Standard Deviation)
<b>Extra effort by subordinates:</b>		
1. Gets me to more than I expected to do	1.97	1.150
2. Heightens my desire to succeed	2.11	1.148
3. Increases my willingness to try harder	2.17	1.130
Average mean score	<b>2.08</b>	<b>1.13</b>
<b>Superior effectiveness:</b>		
1. Is effective in meeting my job-related needs?	2.16	1.046
2. Is effective in representing me to higher authority?	1.87	1.183
3. Is effective in meeting organizational requirements?	2.35	1.083
4. Leads group that is effective	2.23	1.158
Average mean score	<b>2.15</b>	<b>1.116</b>
<b>Subordinate satisfaction:</b>		
1. Uses methods of leadership that are satisfying	2.15	1.168
2. Works with me in satisfactory way	2.26	1.108
Average mean scores	<b>2.20</b>	<b>1.138</b>

Mean indicators: low = 0 – 1.33; moderate = 1.34 – 2.67; and high = 2.68 – 4.00.

effect by extra effort by subordinates, the result depicts that the overall mean score were average (M = 2.08, SD = 1.13). The highest mean score in this dimension was item number 3, “Increases my willingness to try harder” (M = 2.17, SD = 1.130). In term of augmentation effect by superior effectiveness, the finding showed that the overall scores was moderate (M = 2.15, SD = 1.116). The highest mean score in this dimension state as superior is effective in meeting organizational requirements (M = 2.35, SD = 1.083).

Nevertheless, the overall mean scores for subordinates also showed a moderate value (M = 2.20, SD = 1.138). The highest mean score in this dimension stated that “Superior works with me in satisfactory way” (M = 2.26, SD = 1.108). Hence, overall finding depict that mean scores on all the augmentation effects, namely: *extra effort* (M = 2.08, SD = 01.13);

*leaders’ effectiveness* (M = 2.15, SD = 1.116); and *satisfaction* (M = 2.20, SD = 0.1.138) were at moderate level.

The findings are consistent with the study done by Amir Sadeghi & Zaidatol Akmaliah Lope Pihie (2012). The result suggests that the leadership behavior exhibited by the superior of UiTM (*Universiti Teknologi MARA* or MARA University of Technology) have not reached the specifications of ideal leaders.

**Objective 4: Analysis on the relationship between leadership behaviors on leadership outcomes.** Table 7 shows the value of correlation coefficient between leadership behavior and effective leadership outcomes which were extra effort, leader effectiveness, and satisfaction. The results showed that there was a positive and high relationships between *extra effort* (r = 0.807, p = 0.00); *effectiveness* (r = 0.853); *satisfaction* (r = 0.833, p = 0.00) on



**Table 7:**  
Correlation Coefficient between Leadership Behavior and Leadership Outcomes

	Leadership Behavior	p-value
Extra effort	0.807	0.00
Leaders effectiveness	0.853	0.00
Subordinate satisfaction	0.833	0.00

leadership behavior.

This study is in line with the research carried out by T.A. Judge & R.F. Piccolo (2004). The result suggests that augmentation effects of transformational leadership tend to provide ultimate satisfaction, foster inspiration, and excitement to put extra effort among subordinates.

This study was intended to investigate the nature of leadership behavior of the superior as perceived by the academic staff of UiTM (*Universiti Teknologi MARA* or MARA University of Technology). The finding suggested that the respondents perceived their superiors as showing moderate transformational and transactional leadership behavior. Nonetheless, it is indeed empirically proven that leadership does matter. In fact, some characteristic of transformational leadership, such as idealizes influence (charisma), individual consideration, intellectual stimulation, and inspirational motivation were moderately exhibited among the superior academic leaders in UiTM.

This finding suggests that academic leaders of UiTM have the tendency to elevate the desires of followers for achievement and self-development, while also promoting the development of groups and organizations (Bass & Avolio, 1997). However, the result showed that these academic leaders were lacking in intellectual stimulating and individual consideration. Therefore, B.M. Bass & B.J. Avolio (1997) suggested again that one of the ways to obtain effective transformational leadership behavior is to train them early in their careers and provide retaining at the later career stages.

Another interesting scenario is, that the data revealed, that the mean score of transactional leadership style was slightly higher than the mean score of transformational leadership style indicating

that the academic staff perceived that their superiors exhibited a transactional leadership style rather than transformational leadership style. Therefore, it can be inferred that the leaders were perceived more as motivating followers primarily with management by exception (active) and contingent-reward based exchanges. In this sense, the leaders were perceived to be task-oriented rather than developing a closer relationship between leaders and followers.

Subsequently, U.D. Jogulu (2010) asserted that the emergence of transactional leadership in the Malaysian context underscores the acceptance of a paternalistic style of a leader-subordinate relationship which is culture-specific. In this sense, the managers feel comfortable in leading in a transactional manner by being more directive or setting clear limits and expectations to their followers because of the identified societal value of “paternalism”. This contention supports other empirical studies of S.G. Redding (1990) and A. Abdullah (2001), where paternalistic leadership is perceived positively.

Nevertheless, it is indeed interesting to find that academics of UiTM perceived leadership behavior of their superior have profound impact on effective leadership outcome, namely: *extra effort*, *effectiveness*, and *satisfaction*. This finding is consistent with previous studies, for examples from J.M. Howell & B.J. Avolio (1993); T.A. Judge & R.F. Piccolo (2004); and F. Molero *et al.* (2007).

On that note, it is suggested that exhibiting both transactional and transformational is equally important because both types of leadership behavior somewhat have significant impact on leadership outcomes. In fact, B.M. Bass (1985) claimed that transformational leadership does not detract from transactional, rather it builds on it, broadening the effects of the leaders on effort and performance.

## CONCLUSION

Hence, based from the findings, several conclusions could be highlighted as below:

*First*, the academic staff perceived that their superior exhibit both moderate transformational and transactional leadership behavior. However, the mean score showed that the academic leader portray a more transactional leadership behavior as compared to transformational leadership. *Second*, the levels of augmentation effects of leadership behavior were moderate on extra effort, effectiveness, and satisfaction of the academic staff. *Third*, there was no significant differences between leadership behavior and gender. *Fourth*, there were significant relationships between leadership behavior on leadership outcomes.

Thus, the findings of this study have several practical implications to the academic leaders, deans, and managers of higher learning institutions.

*First*, given the role in public educational institutions which include governance issues and political sensitivity, many public academic leaders appear to be mere conduits for external requirements rather than providers of a sense of direction and purpose for staff. Hence, there is a critical need for strong academic leaderships that could set its mission, values, direction, and maintain a clear focus on the goal, especially to make the change efforts successful. In this line, transformational leadership behavior is useful, because of their ability to assist group members to realign their personal values according to their transformational leader's vision and goals, which creates strong values of internalization, cooperation, and congruence among followers (Shamir, House & Arthur, 1993; Shamir, 1995; Beer & Nohria, 2000; and Jung & Avolio, 2000).

*Second*, the result of this study indicated that in generating both systems wide change and alteration of subordinates performance and satisfaction, the organization need both transformational and transactional leadership style. Thus, in this context, transformational and transactional style as proposed by B.M. Bass & B.J. Avolio (1997) could be used in relation to ability and willingness

of subordinates to perform the assigned tasks. Besides, academic leaders also need leadership skills and abilities to lead towards academic and research excellence. To this end, UiTM (*Universiti Teknologi MARA* or MARA University of Technology) or any other organizations in Malaysia need to provide training and on the job experiences as part of their effort to develop their academic leaders and managers.

One of the training courses that could be considered is leadership development program. The goal of the program is to prepare and encourage leaders to act more effectively in the leadership situations they face. Besides, the leadership program should help the participants becomes more intellectually stimulated, inspire motivation, individual considerations and charisma. This nature of leadership development program is very much needed by organizations in order to compete in a turbulent and uncertain environment.

Although the results are encouraging, the present study also has some limitations. This study has focused on only one organization that is UiTM. It is important to take into consideration that UiTM, in its own way, is unique from other learning institutions in terms of its vision, mission, structure, communication systems, and management style. Besides, the study has only focused on academic staff. Thus, a larger sample of employees would have allowed for more accurate results and increase confidence and generalizability.

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## The Effect of Self-Concept, Learning Habit, and Motive of Achievement toward the Learning Achievement

**ABSTRACT:** This research is aimed at finding out the effect of self-concept, learning habit, and achievement motivation toward the students learning achievement at the six-grade of Elementary Schools in the Kebasen District of the Banyumas Regency in Central Java, Indonesia, both individually and wholly. This research belongs to ex-post facto type with descriptive-quantitative approach. The sample, a cluster one, was 20% of the population which was 150 students of the six grade or two classes of each category. The data for the learners' self-concept, learning habit, and achievement motivation was collected through questionnaire based on Likert scale with four options of answer, while that of the students learning achievement was taken from the list of scores of the National Examination. The correlation between the independent and dependent variable was analyzed using correlational statistics and multiple regression. Hypothesis was tested at the level of significance with  $\alpha = 0.05$ . The result was that the mean score of the self concept was 3.175, the learning habit 3.311, and the achievement motivation 2.973, which belong to the category "high, very high, and high" respectively. The mean score of the learning achievement was 22.09, which was categorized as "fair". Individually, the self-concept ( $t = 3.512, p = 0.001$ ), learning habit ( $t = 2.603, p = 0.010$ ), and achievement motivation ( $t = 2.679, p = 0.008$ ) gave positive and significant effect toward learning achievement. Simultaneously, the three variables  $X_1$  (the self-concept),  $X_2$  (the learning habit), and  $X_3$  (the achievement motive) showed significant effect, the  $F$  count being 12.789 with  $p$  at 0.000.

**KEY WORDS:** Self-concept, learning habit, motive of achievement, learning achievement, elementary schools, and national examination.

### INTRODUCTION

The opinion that learning achievement is one of the essential outputs of a learning process has got wide acceptance among experts. This is why it has become an indicator of various policy and research on education. Experts in the field of education commonly agrees that there are three main categories of input that affect the education output, namely: learners background, school environment, and learner's talents. Learner's background provides learning facilities, encouragement, and learning atmosphere. This because conducive environment encourages learners to study better, so that family and school as the learners environment affect greatly the result of learning (Anoraga, 1995; Bell *et al.*, 1996; and Surya, 2003).

Sumadi Suryobroto states that learning achievement is subject to learner's internal and external factors. Psychological conditions, i.e. the form of achievement motive, learning habit, attitude, and self-concept are examples of internal factor (Suryobroto, 2005:83). In other words, learning success is determined by the characteristics of the learner. Teachers, school climate, and school facilities are parts of school environment. All these variables need to be attended. Teachers, for example, should have an active role as professional. His professionalism should encourage learners to have positive motivation and attitude, which will give positive impact toward learning achievement (Bruno, 1983; and Crow & Crow, 1984).

Learning achievement is an end product of learning, which is realized in the form

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**About the Author:** Pamujo, M.Pd. is a Lecturer at Study Program of Elementary-School Teacher Education UMP (Muhammadiyah University of Purwokerto), Jalan Raya Dukuhwaluh, P.O. Box 202, Purwokerto 53182, Central Java, Indonesia. He can be reached at: [pam@ump.ac.id](mailto:pam@ump.ac.id)

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of scores. In Kebasen District of Banyumas Regency in Central Java, Indonesia, the learning achievement is low. The teachers of the Elementary Schools in this district are equal in terms of age, experience, and level of education with those of other districts within the same regency (data from Education Office of the Banyumas Regency), so that it can be expected that the learning achievement is equal too.

In reality, compared to other district in the same regency, the learning achievement as shown in the result of the National Examination in the last four years ranked the seventeenth out of twenty seven schools which was categorized as low. Therefore, there must be an effort to find out the cause. The possibility is that the cause is within the psychological condition of the learners.

From the initial observation and interview, it was found that teachers tended to use old way of teaching in which verbal explanation or lecturing dominated the teaching session, resulting students as watcher in watching the teacher as the actor (interview with Teacher A, 15/12/2010). This led to limited use of learning media. Other findings included the unqualified teachers and low motivation and self-concept on the part of the learners. It was not clear whether this was the result of insufficient attention given by the learners' family which is very crucial if good result is to be achieved (Blocher, 1974; and Bower, 1987).

David McClelland (1972) and David McClelland *et al.* (2006) said that the achievement motivation (n-ach) person is achievement motivated and therefore seek achievement, attainment of realistic but challenging goals, and advancement the job. There is a strong need for feedback as to achievement and progress, and a need for a sense of accomplishment. In others words, it is the learners with high achievement motivation that will have high learning achievement (*cf* Beck *et al.*, 1976; and Uno, 2007).

The interview with teacher revealed that most of learners' time was spent watching television and playing *play station*, resulting in their poor learning habit, which in turn made their learning achievement also poor (interview with Teacher B, 20/12/2010). Teaching

learning process in Elementary School is handled by class teachers, not by subject matter one. It is quite normal to say that the success of teaching learning, which the learning achievement of the learned, is determined by the teacher's teaching skill, attitude, and presence (Cole & Chan, 1994; and Purwanto, 2000).

Therefore, both external and internal factors, such as the self-concept, learning habit, and achievement motivation, are believed to affect the learning achievement. The question of this research is to what extent do these factors influence the learning achievement.

## LITERATURE REVIEW

*On the Learning Achievement.* Learning achievement is the result of measurement of learners which covers the cognitive, affective, and psychomotor domain after a period of learning process using certain types of instrument such as test. S.R. Brown (1996) says that every test measures what the test takers has learned throughout his lifetime. In fact, the purpose of testing usually is to access the level of developed skill in a certain area. This evaluation is done to get, analyze, and interpret the data systematically and continuously.

For this purpose, a test should meet a certain requirement. J.P. Kaplan, C.T. Liverman & V.A. Kraak eds. (2005) state that testing requires standardized condition, because situational variables can affect the scores. The book standards for educational and psychological testing published by the American Psychological Association, and other professional groups, emphasize that a test manual should clearly spell out the directions for administration. Therefore, learning achievement is the result of an evaluation of learning effort which represented by symbol in the form of either letter or statement describing result achieved by the learners for a certain period (Dadidoff, 1981; Bootzin *et al.*, 1986; and Burn, 1993).

As to factor influencing the learning achievement, Slameto (2003) states that there are: (1) the internal factor which comes from the learners themselves and is classified as physical, psychological, and fatigue; and (2) the external factor which comes from outside

the learners and is categorized into family background, school environment, and society.

**On the Self-Concept.** It is accepted that self-concept has positive influence toward learning at school. David M. Brodzinsky *et al.* stated that personality generally refers to the characteristic way that a person behaves, the patterns of belief, actions, and feelings that distinguishes one person from another. Part of personality includes the way of person views him or herself, or the self-concept (Broadzinsky *et al.*, 1986:179).

While Harter argues that the self-concept is our total image of ourselves. It is belief about who we are – our picture of our abilities and traits. It is a cognitive construction, a system descriptive and evaluative representation about the self, which determine how we feel about ourselves and guides our action (in Papalia *et al.*, 1997:279). This means that self-concept has something to do with ideas, thought, belief of someone about him or herself. This will determine how he or she interacts with others.

A similar definition is proposed by Stuart J. Rupke *et al.* (2006), who say that self-concept is all ideas, thoughts, and principles of someone about he or herself which affect his or her relationship with others. This implies that self-concept affects how someone view his or her wholeness both physically, emotionally, intellectually, socially, and spiritually (Sunaryo, 2004:32).

The self-concept forms itself as result of direct and indirect experience. Direct experience enables someone to view him or herself on the basis of his or her own experience, while indirect experience allows someone to view him or herself on the basis of others' experience. Lewis & Borrok states that the development of self-concept is closely related to the child growing cognitive, emotional, and social skill (in Broadzinsky *et al.*, 1986:179).

John Locke also argues that a child is born like a blank slate (in Wijaya, 2013). The self-concept materializes soon after a child is able to respond to his or her environment. The self-concept is formed by experiences, habits, and training in interacting with the environment; or, in other words, self-concept is a social product. This is supported by Dale

H. Schunk that the self-concept refers to someone's collective self-perception shaped through experience with environment and its interpretation, reinforcement, and evaluation by other people (Schunk, 2006:203).

E.B. Hurlock also says that self-concept is formed through stages of primary self-concept and secondary self-concept (Hurlock, 1980:59). Therefore, it can be concluded that the more experience, someone has the more aspect the self-concept.

**On the Learning Habit.** The some one's uses of time for learning which done over and over will form a learning habit. The Liang Gie says that learning habit is a constant way using time to learn over a period of time which relative long. This is a learned behavior, not something natural (Gie, 2000:192). While Burghardt states that learning habit appears due to a decrease in responding tendency using repeated simulation. In learning process, habit formation includes a decrease of actions needed to repond (in Syah, 2001:118). This decreases lead to new pattern of behaving which relatively constant and automatic (Feist & Feist, 2008).

Learning habit does not for overnight, it develop gradually. Mohammad Surya & Rochman Natawidjaja (1992) said that habit was developed in two ways. *Firstly*, human being tends to follow a course of action the least obstacle. In other words, people tend to choose the easiest way of doing or responding to something. *Secondly*, through act done on purpose and with care to give automatic reaction. This happens when someone wants to change old habit with the new one.

Sumadi Suryobroto states that learning habit can shaped through: (1) developing rehearsing plan; (2) making rehearsing schedule; (3) allocating specific time for subject matter rehearsal; (4) employing certain strategies of learning; (5) focusing; and (6) disciplining oneself to learning (Suryobroto, 2005:52).

Good learning habit is an important tool to achieve good result in learning. Sumadi Suryobroto also adds that a good learning habit: (1) is good use of spare time; (2) will give priority on understanding; (3) encourage a learner to like library; (4) make a learner

regularly rehearse learning material; and (5) drive a learner to have passion in learning (Suryobroto, 2001).

**On the Achievement Motivation.** Rita J. Atkinson & Richard C. Atkinson (1983) and David McClelland *et al.* (2006) studied the motivation for a broader purpose and the result was a theory of motivation, which has the impact on the realm of economy. David McClelland *et al.* (2006) distinguish three main needs that influence human behavior, namely: (1) the need to achieve, (2) have power, and (3) affiliate. The need to achieve or achievement motivation is shown on someone's tendency to always set him or herself to a certain standard of excellence. This type of person has a personal responsibility and open to feedback in order to improve his creative achievement (*cf* Irwanto, 1997:206).

Someone with high motivation will have high quality performance. J. Skinner says that knowledge of right, high aspiration, and clear goals are the best preparation and incentive to self-motivation, especially if the pupil is directed and encouraged to set his own goals and seek intrinsic incentive and superior remote goals (in Surya & Natawidjaja, 1992). Therefore, motivation means giving encouragement to someone to direct, organize a certain behavior to reach a certain goal.

Norman A. Sprinthall & Richard C. Sprinthall also argue that the achievement motive is usually aimed at emphasizing a high level of ability and avoiding any display of low ability (Sprinthall & Sprinthall, 1987:468). Similar position is said by John P. Houston, who defines need as the urge to overcome obstacle, to exercise power, to strive to do something difficult as well as and as quickly as possible (Houston, 1985:239). In other words, the need to achieve has to do with the desire to meet or exceed standard of excellence. Therefore, achievement motivation is the tendency to do something challenging and to avoid failure (Gerungan, 2003:158).

People with high motivation to achieve tend to have good self confidence, sense of responsibility, expect a concrete knowledge of his or her performance, get good score at school, and to be active member of the school and society. They also tend to choose friends

who are expert in something than just friends who are emotionally close to him or her. They tend to take risk on the basis of his ability to overcome it rather than of luck or coincidence. Therefore, to arouse this motivation, the role of family is very crucial (Hurlock, 1980).

## METHOD

This research was aimed at finding out the relationship between self-concept, achievement motivation, and learning achievement of students of the sixth grade of Elementary Schools in the Kebasen District of Banyumas Regency in Central Java, Indonesia. This research belongs to ex-post facto type with descriptive-quantitative approach, but qualitative data was also gathered through interviews and observation to supplement the quantitative data. Relationship among variables was analyzed using correlation method (Arikunto, 2000).

The population of this research was all the students of grade six of the Elementary School of the academic year 2009/2010. Out of this population, 20% or 150 students was taken as sample which was cluster in nature. So, there were 2 classes for each category. Before sample was taken population was classified into 3 categories of schools, those with high, fair, and low achievement on the basis of National Examination scores. Besides that geographical was also taken into consideration.

The variables studied in this research were: the independent variables – the self-concept ( $X_1$ ), the learning habit ( $X_2$ ), and achievement motivation ( $X_3$ ); and the dependent variable – the learning achievement ( $Y$ ). To obtain valid and reliable data, data collecting instrument underwent validity and reliability test. To test the first, second, and third hypothesis, simple correlation, regression, and determinant coefficient technique were used. The fourth hypothesis was tested using multiple correlation analysis, multiple regression, and determinant coefficient.

After correlation coefficient was found, significance (F) test was done. The value of F-count was compared to F-table with numerator degree of freedom ( $df = k$ ), and denominator degree of freedom ( $df = n - k_1$ ) at the degree of error of 5%. If the F-count



was higher the F-table,  $H_0$  was rejected and accepted. On the contrary, if the F-count is lower than the F-table,  $H_0$  was accepted and  $H_a$  was rejected. The testing of hypothesis was done through multiple analysis using SPSS (Statistical Package for the Social Sciences) 16 for windows.

If there was the joint influence of the self-concept ( $X_1$ ) and achievement motivation ( $X_2$ ) toward Y, it was continued with multiple regression analysis also using SPSS 16 for windows. The equation for the multiple regression is  $Y = a + b_1X_1 + b_2X_2 + b_3X_3$ . The significance of the multiple regression was tested using F test, the result of which was then compared to the F-table with numerator degree of freedom ( $df$ ) = 1, and denominator degree of freedom ( $df$ ) =  $n-2$  at degree of error of 5% ( $\alpha = 0.05$ ).

## RESULTS AND DISCUSSION

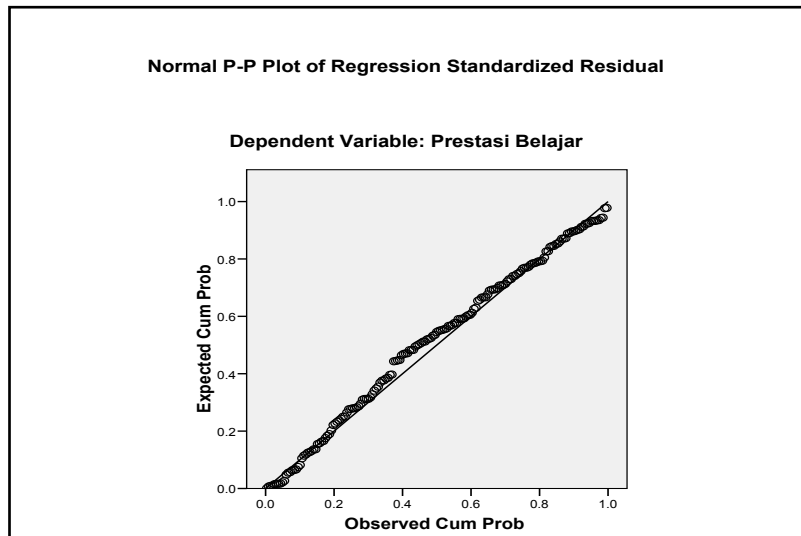
**About the Normality Test.** Data normality is shown by Normal p-p plot which indicates data which lies along the diagonal with the direction as can be seen in the figure 1, each for the dependent variable of the students learning achievement.

The result of normality test was summarized in the table 1.

From the table 1, it can be concluded that the residual of the dependent variable has normal data distribution, due to significance of  $p = 0.333$  which is higher than 0.05.

Based on table 2, it can be seen that the correlation between each independent variable and dependent variable is linear. This is because the probability value (P) of the F-count in the Deviation from Linearity of each independent variable is higher than 0.05. The assumed linearity of correlation is met.

The result of Heteroscedasticity test on table 4 shows that assumption of the absence of heteroscedasticity is fulfilled at the three independent variables. This is shown by the probability value (P) which is higher than



**Figure 1:**  
Normal p-p Plot, Dependent Variable of Learning Achievement

0.05. This can be the basis of conclusion that the regression used to estimate the effect of self-concept, learning habit, and achievement motivation toward can be used to test the hypothesis.

About the effect of self-concept, learning habit, and achievement motivation toward learning achievement can be described as follows:

**First, Coefficient of Determination ( $R^2$ ).** The analysis of multiple regression with three predictors (self-concept, learning habit, and achievement motivation) gives the coefficient of determination ( $R^2$ ) of 0.183. This magnitude of  $R^2$  shows that 0.183 or about 18.3% of the changes in the dependent variable of learning achievement can be explained by the three independent variables through the equation of multiple linear regression obtained from the result of data processing with SPSS (Statistical Package for the Social Sciences), namely  $Y = 0.371 + 2.956X_2 + 2.027X_2 + \epsilon$ .

Based on the discussion about the multiple linear regression by Singgih Santoso (2010:335), the constant of 0.317 indicates that if there is no effect of  $X_1$  (self-concept),  $X_2$  (learning habit), and  $X_3$  (achievement motivation), each of which being zero, the value of the learning achievement variable is only 0.317. The  $X_1$  regression coefficient of 2.956 indicates that any one unit increase

**Table 1:**  
Result of Normality Test for the Dependent Variable of Learning Achievement

No.	Dependent Variable	Z Value Kolm-Smirnov	P (Sig.)	Status
1.	Learning achievement	0.946	0.333	Normal

Source: Result of primary data processing (2010).

**Table 2:**  
Result of Linearity Test

Correlation between Independent and Dependent Variable	Deviation from Linearity		Conclusion
	F-count	P	
$X_1 \longrightarrow Y$	1.284	0.159	Linear
$X_2 \longrightarrow Y$	1.159	0.103	Linear
$X_3 \longrightarrow Y$	0.890	0.639	Linear

**Tabel 3:**  
Result of Multi-Co-Linearity Test Based on Tolerance Value and VIF

Dependent variable	Independent Variable	Tolerance	VIF	Remarks
Learning achievement	Self-concept	0.941	1.063	No multiple-co-linearity
	Learning habit	0.906	1.104	
	Achievement motivation	0.947	1.056	

Source: Result of primary data processing (2010)

**Tabel 4:**  
Result of Heteroscedasticity Test Using Glejser Method

Independent Variable	t <sub>-count</sub>	P	Remarks
$X_1$	1.464	0.145	No heteroscedasticity
$X_2$	-1.700	0.105	No heteroscedasticity
$X_3$	-1.818	0.071	No heteroscedasticity

of learning achievement increases by 1.922 unit (due to positive sign). While that of  $X_3$  at 2.027, indicates that any one unit increase of achievement motivation will cause learning achievement to increase by 2.027 (due to positive sign).

**Second, Measuring the Significance of Simultaneous Effect Using F-Test.** The result of measurement of the simultaneous effect of  $X_1$  (self-concept),  $X_2$  (learning habit), and  $X_3$  (achievement motivation) toward Y (learning achievement) using F-test gave F-count of 12.789 with P being 0.000. Because the value of P was less than 0.05, the three variables simultaneously gave significant effect toward the dependent variable Y (learning variable).

**Third, Measuring the Significance of Individual Effect Using t-Test.** Regression analysis gave correlation coefficient for  $X_1$

variable (self-concept) of 2.956, with positive sign. Meanwhile, the significance test to this coefficient using t-test resulted in t-count of 3.512 with P being 0.001. Since the value of P was less than 0.05, the effect of  $X_1$  (self-concept) toward Y (learning process) was significant and positive (due to the positive sign).

Regression analysis gave correlation coefficient for  $X_2$  variable (learning habit) of 1.922 with positive sign. Meanwhile, the significance test to this coefficient using t-test resulted in t-count of 2.603 with P being 0.010. Since the value of P was less than 0.05, the effect of  $X_2$  (learning habit) toward Y (learning process) was significant and positive (due to the positive sign).

Regression analysis gave correlation coefficient for  $X_3$  variable (achievement

motivation) of 2.027 with positive sign. Meanwhile, the significance test to this coefficient using t-test resulted in t-count of 2.679 with P being 0.008. Since the value of P was less than 0.05, the effect of  $X_2$  (self-concept) toward Y (learning process) was significant and positive (due to the positive sign).

## CONCLUSION

As the analysis and discussion on the effect of independent variable (self-concept, learning habit, and achievement motivation) toward the learning achievement at Elementary Schools in Kebasen District of Banyumas Regency in Central Java, Indonesia show, the followings are the conclusions.

The value of  $R^2$  indicates that 0.183 or about 18% of change in the dependent variable (learning achievement) can be explained by the three predictor variables (self-concept, learning habit, and achievement motivation) using F-test shows significant effect with F-count of 12.789 and P at 0.000. Simultaneously, the three variables have significant impact toward the dependent variable.

Individually, the variable self-concept ( $t = 3.512$ ,  $p = 0.001$ ), learning habit ( $t = 2.603$ ,  $p = 0.010$ ), and achievement motivation ( $t = 2.679$ ,  $p = 0.008$ ) gives positive and significant impact toward learning achievement.

Based on the result of this research, it suggested that: (1) to obtain maximum result of learning achievement of the Elementary School's students of Kebasen District of Banyumas Regency in Central Java, Indonesia, stakeholders need to improve the students' self-concept, learning habit, and achievement motivation; and (2) researchers with wider scope exploring more variables need to done to provide feedback to stakeholders, especially those responsible for improving student learning achievement.

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## Principals' Leadership Style and Stress among Teachers with Intention of Leaving the Teaching Profession

**ABSTRACT:** The principal plays an important entity in the school's success. In order to produce an excellent school, the principal must pay attention to good working conditions for teachers. Factors of the principal's school management and leadership greatly affects aspects of teachers' satisfaction and their comfort in handling their jobs as a teacher in the school. This study aims to investigate the leadership style and stress among teachers with the intention of leaving the teaching profession. A total of 165 respondents were involved in this study. This study is a survey using quantitative methods. The questionnaire used in this study. Data were analyzed by computer software Statistical Package for the Social Sciences (SPSS) version 20.0 using *t*-test, one way ANOVA, and Pearson correlation analysis; and the data obtained are described through descriptive statistics and inferential statistics. The results showed a significant relationship ( $r = .195, p < 0.05$ ) between the style of leadership with the intention of leaving the teaching profession. The results also showed a significant correlation ( $r = .293, p < 0.01$ ) between teacher stress with the intention to leave the teaching profession among teachers. In addition, the study also showed that the intention to leave the teaching profession based on demographic factors of gender, age, education level, job category, and length of service among teachers is simple. At the end of the discussion, the researchers expressed some implications of the study and further research recommendations.

**KEY WORDS:** Leadership style, stress, intention of leaving the teaching profession, the role of teacher in Malaysia, and demographic factors.

### INTRODUCTION

A massive development in each country lies critically on its place within the education and development agenda. Once you have signed the agreement as being an educator, it is certain rise and fall of a nation lies on his or her shoulder. Responsibility pledged not only to disseminate knowledge to students, but people usually expect more than that. It is undeniable that phrases like teachers are like candles that burn themselves to light the way for others since they are facing many challenges over the years until the present time. Indeed, the teacher not only undertake the task as teachers who are committed to teaching, but also educate and transform man named students who have not mastered the basic skills

of reading, writing, and arithmetic to be a successful man (Dirwan & Seman, 2001; and Ambotang, 2010).

Therefore, there is no denying that teachers need to handle all responsibility for achieving a more rapid development of the country. In embracing globalization without boundaries, the role of the teacher is needed because without them, progress to be achieved will be retarded. Teachers are given a role in the forefront to block everything that could undermine the country.

Through the perspective of community, great teachers are those who have high self-esteem, integrity, knowledgeable, efficiency, creativity, dedication, diligence, and competence in pedagogy and attitudes to

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*About the Authors:* Dr. Anuar Din is a Senior Lecturer at the School of Education and Social Development UMS (Malaysia University of Sabah), 88400 Kota Kinabalu, Sabah, Malaysia; Sabdin Hussin Alipin is a Teacher at Sabah Education Department, Kota Kinabalu, Sabah, Malaysia and Graduate Master of Education (Education Management) from UMS; and Dr. Abdul Said Ambotang is a Senior Lecturer at the School of Education and Social Development UMS in Kota Kinabalu, Sabah, Malaysia. The authors can be contacted via e-mails address at: [anudin@ums.edu.my](mailto:anudin@ums.edu.my), [sabdyn\\_81@yahoo.com](mailto:sabdyn_81@yahoo.com), and [said@ums.edu.my](mailto:said@ums.edu.my)

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continue to drive excellence. Teachers' ability to disseminate knowledge translated in appearance, attitude, and high self worth that will accelerate the appreciation of teaching and learning. A great teacher will be able to advance the profession of education and teaching at a higher level.

Responsibility and trust given to the teacher, then finally move the Ministry of Education (MoE) Malaysia to introduce the Education Development Master Plan (2006-2010) in the interest of upholding the teaching profession. Therefore, teachers need to be aware of the importance of their role in the educational arena to produce a method or a more high-impact strategies in strengthening the education community in our country.

Prime Minister, Datuk Seri Najib Tun Razak, at the launch of the Preliminary Report Education Development Plan 2013-2025, recently described the plan as a comprehensive and thorough. This long-term plan has outlined 11 shifts that must be addressed, include the transformation of teaching as a profession of choice and ensure high-performance leader stationed at each school (cited in *Mynewshub*, 13/12/2012).

Through the MoE Malaysia, the transformation of the education system developed by Education Development Plan 2013-2025, among others, aims to produce an education system based on five features aspirations of access, quality, equity, solidarity, and efficiency. In an increasingly competitive global environment, the country needs a transformation in the entire education system to meet the demands of developing countries under the New Economic Model (NEM), Economic Transformation Programme (ETP), and Government Transformation Programme (GTP).

## RESEARCH BACKGROUND

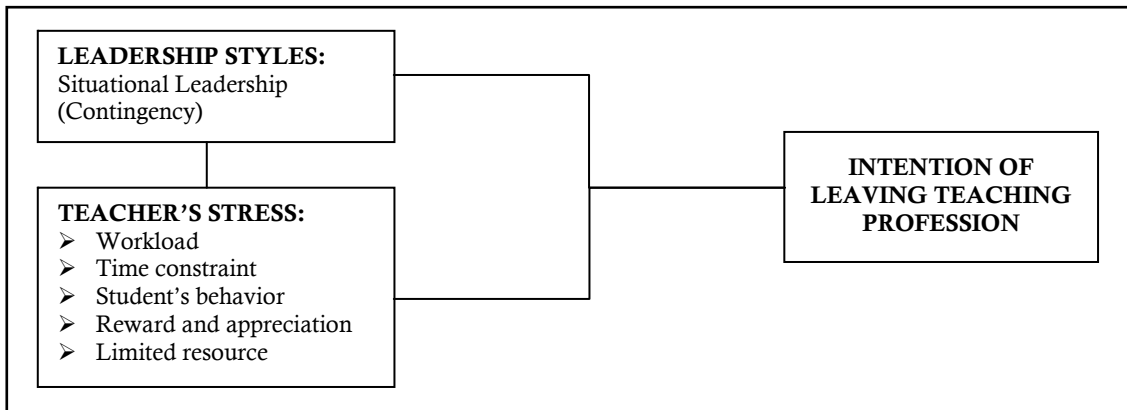
The data, taken from the Ministry of Education (MoE) Malaysia in October 2012, stated that civil servants who worked as a teacher is of 412,720 people. This gives an impression that civil servant who works as teachers represent about 29 per cent over the total civil servants in Malaysia. This data also shows the number of teachers working

in Secondary Schools is of 176,407 people, whereas the number of teachers working at the Primary Schools level is the total of 236,313 people. Meanwhile, new data obtained from the Information and Communication Unit, the Sabah State Education Department found that the number of Secondary School teachers in the Sabah until 10 April 2013 stood at 15,033 people. Of this amount, a total of 6,143 people, or 40.86 per cent, are males and 8,890 people, or 59.14 percent, are females.

Meeting the challenges in the learning environment of the 21<sup>st</sup> century, the government through the MoE Malaysia has outlined a number of strategies in an effort to upgrade the teaching profession at the same profession as the top choice in the job market in the near future. Among the work that has been done, including the MoE Malaysia to increase the professionalism of teachers through the Special Program for the Teaching Diploma, Graduate Teacher Programme, Twinning Program of the Institute of Aminuddin Baki (IAB) with the University Officer Training Scheme and abroad, upgrading the lecturer in Teaching Institute that have basic degrees are encouraged to apply for scholarships for a master's degree or Ph.D., either locally or abroad, and many more. At the same time, educators are also offered with a variety of rewards and promotion opportunities as the post of the Outstanding Principal, Excellent Teachers, and promotional posts for "Time Base" (Ambotang, 2010).

Zaidatol Akmaliah Lope Pihie (2001) explains that one of the reasons there is a problem in school administration, when school leaders or less taking into account, the tendency of teacher dissatisfaction factors. A review taken from F.C. Lunenberg & A.C. Ornstein (2000) also found that leadership behaviors practiced by school leaders have a major influence on job satisfaction of the teacher. Abdul Shukor Abdullah (2004) asserts that elements of management and leadership are a key factor in achieving effectiveness and downs of school.

Thus, at the school level, principals are leaders, managers, and administrators who will perform a variety of functions and should have the competence and wisdom



**Figure 1:**  
The Conceptual Framework of Principal Leadership Styles and Stress among Teachers' Intention of Leaving the Teaching Profession

to affect leadership. In order to ensure there is an increase in productivity, teachers are burdened with multiple tasks and additional responsibilities. In 2005, the National Union of the Teaching Profession (NUTP) claimed that the level of stress among teachers in this country is a serious concern due to the increasing workload (cited in Mohd Noor, 2011).

Ishak Mad Shah (2004) states that the cause of the stress management in the workplace is the workload. We are currently making a progress in the field of knowledge-based economy, thus claiming the all educators to work even harder in terms of improving their level of knowledge, especially in education arena. In other words, the teacher demanded to change their view of their surroundings. Ishak Mad Shah (2004) was also stated that the cause of the stress management in the workplace is causing by workload.

To the extent that Malaysia is currently illustrates a massive progress in the field of the knowledge-based industries; claiming all educators to double up their effort to improve the level of their knowledge, especially in the education system. This change will certainly cause stress and workload among teachers. Massive reforms in education system happens in our country such as the implementation of education Curriculum for Primary Schools or KBSR (*Kurikulum Bersepadu Sekolah Rendah*), Integrated Curriculum for Secondary Schools (ICSS), the implementation of

the Teaching and Learning of Science and Mathematics in English or PPSMI (*Pengajaran dan Pembelajaran Sains dan Matematik dalam bahasa Inggeris*), life long learning, proposal for all students to passed in their requiring English, *Bahasa Malaysia* (Malay language), and uphold policies to strengthen English or MBMMBI (*Memartabatkan Bahasa Malaysia dan Memperkukuh Bahasa Inggeris*), and the implementation of the Standard Curriculum for Primary Schools or KSSR (*Kurikulum Standard untuk Sekolah Rendah*) has added more responsibilities and workload among teachers in schools.

Due to the changes which challenge teachers' traditional roles, responsibilities, practices, and a sense of professionalism with current teacher's workload and inefficiencies of managing multiple times of task in hand enough to explain the changes in the minds of the teachers of their future in the teaching profession.

However, Shuib Dirwan & Johari Seman (2001) indicated that teachers' work is easier, with shorter working hours and more school holidays. Instead, teachers perceived problems are faced with a various attitudes from their students, and their problem is also reflected in the comment from their student's parents and their attitudes towards the teacher. To make it even worst, teachers are now faced with an added responsibility of involving the higher authorities, governments, NGOs (Non-Governmental Organizations), and other

organizations that involved and a variety of personal problems causing these teachers intended to leave the profession early. In addition, teachers recount huge or excessive work load that is sometimes carried to the bedroom. Overtime is rarely appreciated not to mention the lack of incentives received by these teachers.

Based on the conceptual framework shown in figure 1, the focus of the study is the extent to which the independent variables of leadership style and teacher stress in a relationship with the intention of leaving the teaching profession. This means that the frame of this study is not meant to showcase the evaluation in terms of student outcomes such as improved productivity or increased brilliance, but more focused on the process of leadership played by school leaders to show the same to the perception of teachers on the development and future of their career. In addition, the study also provides a framework how stress factors under study could reflect the level of acceptance of teachers and implications for the teaching profession as a whole within the study population.

In the context of this research, the researchers are more emphasis on leadership style or contingency situations. Assuming the leadership styles and its different leadership model is better in any different situations and it flashed easily changed for the leaders to choose a style that suits the present situation that they want to apply. According to S.P. Robbins (2000), in his "Theory of Organizational Behavior", divide this situation into five main theories: (1) Theory of Fiedler; (2) Hersey and Blanchard's Situational Leadership Theory; (3) Leader-Member Exchange Theory; (4) Path-Goal Theory; and (5) Model-Leader Participation.

Based on previous studies, Mohd Kassim Ibrahim (2003), and adaptation in the context of education, there is no doubt that the study of leadership in terms of the behavior displayed by the leaders were able to identify a consistent relationship between the style of leadership behavior and their group performances. However, what is not taken into account regarding the situational factors that influence success and failure. For example,

the school principals in urban and rural area schools can demonstrate effective leadership, but in a different leadership styles.

How could this happen? The answer is both urban and rural areas are different in terms of infrastructure and access advantages and different environmental situations. Universal theory fails to take this into account. Principals who work in remote areas can be an effective leader, but is his leadership style can be effective in the urban schools areas? Probably not, situations change and leadership style will vary according to circumstances. Unfortunately, approach behavior (behaviorism) does not take the changes in the situation. Thus, the researchers are interested to learn more leadership situational based on the perception among secondary school teachers that involved in the study.

Effective leadership depends on the individual's right to condition, or the current situation, and the availability of appropriate groups for the current situation and the subordinate groups. Thus, the behavior of the leader, its followers or subordinates, organizational climate, and the goal should be taking into account. Situational leadership, or contingencies such leadership, is a leadership theory emerged because of the weaknesses and failure of leadership theories available.

Thus, through this theory assumed that different situations require personality patterns and styles of leadership to give a greater impact to be an effective leadership. According to Aminuddin Mohd Yusof (1990), situational leadership theory seems simple and can be applied in many situations. However, as shown in the theories that have been discussed before, the world-of-work is definitely a complex world because there are many factors that influence the relationship between leader effectiveness.

Meanwhile, S.P. Robbins (2000) predicts that leadership success is more complex than a set number of selected attributes or behavior. Failure to achieve a consistent result in a focus on the influence of circumstances or situations. The relationship between leadership style and effectiveness is proposing under situations A whereby X style is more suitable, while the Y style is more appropriate to the situation B, and



Z style is suitable in the style of C. But what is the situation A, B, C, and so on? It is one thing to say that effective leadership depends on the situation and other things to isolate the situation.

According to S.P. Robbins (2000) also, critical situations can influence leadership effectiveness. The development of contingency theory or situations involving variables such as the structure of the task being performed, the quality of the leader-follower relationship, the power of the leader, follower role clarity, group norms, availability of information, compliance against the leader, and follower's maturity variable stress that they possessed.

The stress variable covers very extensive discussion and present in a variety of contexts and situations in various stages. Various theories and models associated with stress. But, in the context of this research, it narrowed down the scope of the study to lead to stress faced by Secondary School teachers selected based on population. Therefore, the stress teachers discussed was the factor workloads, time constraints, bureaucratic students, appreciation, and support and lack of resources.

The principal plays an important entity in the school's success. As a leader, principals do not interact with the last of his subordinate staff in a positive and committed to the school. This assertion is supported by R.L. Andrew & J. Morefield (1991) and also Shahrin Hashim & Nordin Yahya (2008), who stated that in order to produce an excellent school, the principal must pay attention to good working conditions for teachers. They found that factors of the principal's school management and leadership greatly affects aspects of teachers' satisfaction and their comfort in handling their jobs as a teacher in the school (Andrew & Morefield, 1991; and Hashim & Yahya, 2008).

In addition, the skills or the ability to understand the style of his followers also an advantage to prevent or resolve problems related to human relations in organizations (Subramanian, 2006). The main criterion of leadership is the ability to learn from experience to improve the ability to deliver their abilities.

There is a research that has been done

by Mohd Kassim Ibrahim (2003) on the relevance of the leadership style of the teacher job satisfaction; and through this research, it involve teachers and students in 61 schools using questionnaires and interviews. The study found that the directing leadership style is the dominant leadership style practiced in the schools, rather than participative leadership style, leadership style, and achievement oriented leadership style. The study also found that Path-Goal Theory is relevant to the study of leadership styles of secondary school principals (Kassim Ibrahim, 2003).

A study was conducted by Hussein Ahmad (1993) on leadership style involving over 154 respondents among the principals in Malaysia at Aminuddin Baki Institution. The results showed that there were significant differences on the practice of leadership styles of school principals in Malaysia. The study also shows that the dominant leadership style practiced by the principal is human-oriented (people-oriented-leadership style) and no significant relationship between leadership style and human oriented with their background factors such as gender, professional qualifications, experience, and location (Ahmad, 1993).

According to Hatta Sidi & Mohamed Hatta Shaharom (2005), the stress is a part of human life since time immemorial and it is unnoticed. It is a fact that stress changes over time. It is also commonly experienced by all people when you are in bad situation (Sidi & Shaharom, 2005). Meanwhile, B.L. Seaward (2006), according to its latest findings show that 70 percent to 80 percent of disease experienced by humans now are the effects of stress. The data presented by the National Center for Health Statistics reported in the year 2000 asserts that most problem of human disease correlates with stress (eg, cancer, heart disease, and stroke); and it is difficult to control and prevented with medication (Seaward, 2006). Stress requires comprehensive healing which include changes in lifestyle, thinking, emotional, spiritual, or behavior that takes long and strong commitment based on a systematic procedure.

S.P. Robbins (2000) also mentioned that stress can be seen in various ways and can be divided into three types of categories:

physiological, psychological, and behavioral. The management level does not bother the low-to-moderate levels of stress experienced by their employees. This is due to stress at this stage can improve the quality of work. But, if the level of stress is too high or too low for a long period of time, it can lower a person's morale; thus, their job performance and satisfaction will decreased. Thus, the leader of the organization must take reasonable steps to overcome this problem.

M. Borg & G. Mark (1990) have found that in Britain, the phenomenon of stress in the teaching profession when a comparison was made with their other work; it shows that the teaching profession was found to have high levels of stress. This assertion is supported by data provided by the health and safety executive to support teaching is one of a very stressful job. It founds that 41 percent of teachers reported have a high stress level. This study compares the teaching profession with a career as a nurse who has a stress level of 31 percent; those, who involved in management work with 29 percent and in other professional and support field consist of 27 percent (Borg & Mark, 1990).

Based on the results of interventions carried out by the MoE (Ministry of Education) Malaysia, in 2012 found that there were about 530 people, or 0.128 percent of teachers in Malaysia, face a mental disorder due to stress. The findings also revealed that stress contributes to 24 percent of the 12 causes of mental disorder identified by the MoE Malaysia. The implementation of the transformation of education and education reform has previously made the role and responsibility of the teacher to be larger, challenging, and more complex. Due to the challenges and increased responsibilities and changing curriculum and the new curriculum in the education system is often associated with the phenomenon of teachers decided to change their careers and retire earlier (Syed Sofian Syed Salim & Rohany Nasir, 2010). This shows that this stress has caused many problems that lead to the intention to leave the profession.

According to the NUTP (National Union of the Teaching Profession)'s research in 2005,

in related to stress among teachers, found that the teaching staff who work in stressful conditions is around 69 percent of the total respondents which is 9,328 teaching staff (cited in *Utusan Malaysia*, 16/1/2006; and Mohd Noor, 2011). The study found that among the factors that cause stress among teachers are the workload, time constraints, student's behavior, appreciation, and support and lack of resources.

Many studies conducted related stress among the teachers (Fitri Shahari, 2006; Valli & Buese, 2007; Lemaire, 2009; and Mohd Noor, 2011) relate the stress among teachers can have greater impact on their career. A research has also been conducted by Woo Sew Fun (2008) on the factor that drives the working pressure (stress) among teachers of SJKC (*Sekolah Jenis Kebangsaan China* or Chinese Vernacular School) in Malaysia, involving 50 respondents in three schools in *Wilayah Persekutuan* (Federal Territory) Kuala Lumpur by using a questionnaire to obtain data. The results shows that the stress levels or stress experienced by teachers from the three schools selected to be at moderate pressure on the mean scores of 2.348 (Sew Fun, 2008).

Therefore, in this study showed that the main factor that causes stress is a factor of time constraints than other factors. This is due to the teachers tied to their profession, while at the same time are also burdened by other ancillary tasks that ultimately cause stress to teachers. Human relationship is vital to ensure the stability and harmony of an education system. Thus, the principal is the person responsible for creating a conducive atmosphere with his subordinates. Principals who are not skilled in interpersonal relationships would have problems to get cooperation or collaboration from the teachers.

Principals also often seem to ignore human relationships when appointed to that position. Principals should be able to distinguish the role of school administrators in the role of education managers. There are handfuls of professional principals who criticize and rebuke any teacher who is not a prudent manner and regardless of place or situation. As a result, some of the teachers who prefer to marginalize themselves, to be passive, do not

respect the head, and daring move to another school. So, unfortunately, there is a desire to leave the profession immediately, due to the effects of conflict between principals and their subordinates (Yahya, Yahya & Ismail, 2008).

A study done by H.C. Tan (1996), in related to stress among teachers working in Chinese Primary School in Gombak District, shows that the average level of stress in the teaching profession is at a moderate level. The study that has been conducted by Noor Azzuddin Aziz (1990), in regards with the relationship between job stress, job satisfaction, and propensity to quit among teachers working in rural areas using the quantitative methods, has been found that there is a relationship between job stress and job satisfaction in the teacher's career. The findings of the study by Syed Sofian Syed Salim & Rohany Nasir (2010), related to emotional intelligence on job stress and intention to stop due to excessive workload of the teaching profession, found also that emotional intelligence has a positive and significant relationship with the intention to leave the profession.

Other aspects such as social skills can be an important factor on the behavior of members of the organization, especially on one's devotion to career fields and organizations where they work. These skills need to be used by teachers to administrators, teachers and their colleagues, teachers and students, and parents of students have been able to prevent the teacher from teaching the intention of leaving their work early. A study conducted by Syed Sofian Syed Salim & Rohany Nasir (2010) also found that gender does not give effect to the intent variable pressure and resigned from the teaching profession. This is in line with the results obtained by Mohd Azhar (2004) shows that emotional intelligence of men and women are more alike than different. This indicates that gender does not give any effect on the level of emotional intelligence.

#### **PROBLEM STATEMENT, OBJECTIVES, AND RESEARCH HYPOTHESES**

Becoming a teacher is a noble career that is considered to be a profession that is coveted by many job seekers (Mad Shah, 2004). However,

it has also been highlighted that many teachers nowadays, who are serving in the profession, expressed their desire to leave the profession at an early stage. Ghazali Othman (1979) shows that there were approximately 38.7 percent of teachers in Malaysia are on the low level of job satisfaction is caused by high levels of stress and reduced morale and prompted to quit the job before their retirement.

According to the Teachers Service Unit, until 2004, there are many teachers have been applied to leave the teaching; and in 2003, there were 529 teachers who resigned from the profession and among them were 412 teachers have been resigned due to personal reasons. The effectiveness of a school in this country is closely linked to the performance of the principal leaders, whether it is efficient and effective (cited in <http://www.moe.gov.my/en/praperkhidmatan>, 5/4/2014).

Nursuhaila Ghazali (2007) says that the principal is a top leader in the school and they need to interact with teachers' attitudes to achieve their goals. Instead, schools nowadays are facing various problems and the complexity is also associated with a leadership style which is less prominent (Subramanian, 2006). Criticism associated with leadership ability for a long time should be no longer heard (Salwana Alias, 2010).

The findings of the study made by Azlin Norhaini Mansor (2006) reported that in some situations, the principals seem still less proactive, less creative, less innovative, often lose focus and concentrate on the actual goals of their management as often face the same problem. Azlin Norhaini Mansor also noted that there are some principals do not open up and show a passive attitude, particularly when facing management problems (Norhaini Mansor, 2006). Therefore, the leadership style may be one of the aspects that contribute to the desire for these teachers to leave the teaching profession.

According to the NUTP (National Union of the Teaching Profession) in 2005 review, in related with stress among teachers, found that the teaching staff who work in stressful conditions is 69 percent of the total respondents, which is comprise of 9,328 teaching staff (cited in *Utusan Malaysia*,

16/1/2006; and Mohd Noor, 2011). Moreover, much research related stress among the teachers, which includes Mohd Fitri Shahari (2006); L. Valli & D. Buese (2007); Woo Sew Fun (2008); J. Lemaire (2009); and Fazura Mohd Noor (2011), which relates the stress in teachers, can bring a greater impact on their careers. A string of challenges and increased responsibilities in the education system is often associated with the phenomenon of teachers decided to change their careers and retire earlier (Syed Salim & Nasir, 2010). This shows that the stress has caused all sorts of problems down to a desire for many teachers to leave the teaching profession.

Research objectives of this study are: (1) to identify the desire to leave the teaching profession based on demographic factors such as gender, age, job category, education category, and length of service; (2) to investigate the relationship between leadership style with the desire to leave the teaching profession; and (3) to examine the relationship between teacher stress with the desire to leave the teaching profession

And research hypotheses of this study are: (1)  $H_{01}$ , "There is no significant relationship between the leadership styles with the desire to leave the teaching profession"; and (2)  $H_{02}$ , "There is no significant relationship between teacher stresses with the desire to leave the teaching profession".

## RESEARCH METHOD

This research is using a quantitative method. Therefore, this study will be using a questionnaire as an instrument. Chua Yan Piaw (2006) states that a survey research strategy is appropriate in order to get a descriptive picture of the research. Meanwhile, according to Mohd Najib Abdul Ghafar (1999), a quantitative approach is based on categories, such as quantity and frequency of use scores in analyzing the data. Mohd Majid Konting (1990) noted that the questionnaire can be used to get the facts, beliefs, feelings, and desires. In addition, the questionnaire more practical use for large populations.

According Chua Yan Piaw (2006), the study of the relationship or correlation is intended to investigate the extent to which variations in one factor balanced with variations in one

or more other factors based on the correlation coefficient. Mohd Majid Konting (1990) states that correlation study examined the relationship between the variables that exist in a problem.

This study was to examine the relationship between variables; thus, giving researchers the opportunity to make a prediction score and explain the relationship between the variables. The research was conducted in all Secondary Schools in the district of Pitas, Sabah. In this study, it refers to a target group of the research activities carried out (Yan Piaw, 2006). The study populations are taken from all teachers from the Secondary Schools in the district of Pitas, Sabah. According to figures obtained from the Information and Communication Unit, the Sabah State Education Department or JPNS (*Jabatan Pendidikan Negeri Sabah*), total population (N) consists of Secondary School teachers who served in the Pitas district until the month of April 2013 was estimated 287 people. Sampling refers to the process of selecting a certain number of respondents from the population to the understanding of the properties of the sample in order to show the researcher to make generalizations about the properties of the sample population (Salant & Dillman, 1994; Sekaran, 2003; and Lee Chuan, 2006).

In determining the sample size of this study, the researchers refer to the determination of sample size tables provided by R.V. Krejcie & D.W. Morgan (1970). Therefore, based on the sample size determination formula of R.V. Krejcie & D.W. Morgan (1970), if the population is of (N) = 287, then the appropriate sample size is the sum of (S) = 165. However, to increase the level of confidence and to reduce the error to the findings, the larger the sample size used a total of 170 people. Therefore, in this study, a total of 170 questionnaires were distributed in person directly to the respondents. Out of the total number of forms that have been distributed, around 167 questionnaires were obtained and only 165 questionnaires only used as research data after the data cleaning process is done. In this study, the sampling method used was stratified random sampling and simple random sampling.

Stratified random sampling allows the study population is divided into sub-populations that do not overlap in terms of demographic characteristics desired.

A research instrument for the purpose of this study is using a questionnaire. It aims to collect as much data and information. The questionnaire is divided into four sections, namely: (1) Part A: demographic information; (2) Part B: to measure leadership style adopted from Mohd Kassim Ibrahim in 2003; (3) Part C: to see the stress level among teachers adopted from Fazura Mohd Noor in 2011 and Woo Sew Fun in 2008; and (4) Part D: focused on information about teachers desire to leave the teaching profession adopted from Sulin Eban@Suelyn in 2004.

This questionnaire is using five point Likert scale. The data collected through questionnaires were analyzed using the computer software of SPSS (Statistical Package for the Social Sciences) version 20.0 for the validity and reliability of the instrument. Data were analyzed using two statistical methods of descriptive statistics and inferential statistics. Descriptive statistics were used because the data generated can be considered as a summary of the entire set data. It also can provide information directly and easily (Walsh & Fisher, 2005).

In this study, descriptive data analysis is used to describe the demographic information of the respondents' gender, age, job category, education level, and length of service in terms of frequency, percentage, and mean score. Inferential statistics such as independent t-test, oneway ANOVA, and Pearson correlation ( $r$ ) were used in analyzing the data. The test was to see the score of the intention to leave the profession based on the gender of male and female. Pearson correlation analysis ( $r$ ) was to determine the strength of the relationship between the dependent variable, namely the desire to leave the teaching profession with the independent variables of leadership style and teacher stress level. This analysis was also used to determine the strength of relationship intention to leave the profession based on the principal situations leadership style and teacher stress factors (Yahya *et al.*, 2007).

A pilot study was conducted involving 30

respondents consisting of teachers working in the state of Sabah in Kota Kinabalu and Tuaran. The results obtained showed that the Cronbach alpha for the variable leadership style is 0.946, for teachers as a whole stress factor is around 0.891 to 0.950. Meanwhile, the Cronbach alpha for the variable intention to leave the teaching profession is 0.737. This means that, on a scale of F.J. Hair *et al.* (2007), shows an analysis of the instrument's reliability was good to excellent.

## RESULT AND DISCUSSION

### *First, Intention to Leave the Teaching Profession Based on Demographic Factors.*

The mean score analysis carried out for the variable means the desire to leave the teaching profession based on demographic factors such as gender, age, education level, job category, and length of service. Based on table 1, the results showed that the mean score ( $M = 3.30$ ,  $SD = .425$ ) were taken from the male respondents, while the mean score ( $M = 3.25$ ,  $SD = .543$ ) were coming from the female respondents.

A detailed analysis show, the mean score for intention to leave the profession by gender is at the average level. Thus, these findings showed that the intention to leave the teaching profession based on male and female among teachers was in a moderate level.

Meanwhile, based on table 2, the results showed that the mean score ( $M = 3.30$ ,  $SD = .455$ ) was showed in the age category of 21-30 years; mean score ( $M = 3.27$ ,  $SD = .562$ ) were taken from the age category of 31-40 years; mean score ( $M = 3.27$ ,  $SD = .208$ ) for the age category of 41-50 years; and the mean score ( $M = 2.86$ ,  $SD = .764$ ) for the age category of 51 years and above.

Advanced analysis shows the mean score for intention to leave the profession in each age category is located at the mean score ( $M = 2.34 - M = 3.67$ ) which is at the average level. Thus, these findings showed that teacher's intention of leaving the teaching profession based on age demographics among teachers was shown in a moderate level.

In addition, by referring to table 3, the results showed that the mean score ( $M = 3.09$ ,  $SD = .706$ ) for the education category STPM

**Table 1:**  
 Intention to Leave the Teaching Profession Based on Gender

Gender	N	Mean	Standard Deviation
Male	82	3.30	.425
Female	83	3.25	.543

N = 165

**Table 2:**  
 The Intention of Leaving the Teaching Profession Based on Age

Age	N	Mean	Standard Deviation
21 – 20 years	72	3.30	.455
31 – 40 years	72	3.27	.562
41 – 50 years	19	3.27	.208
51 years and above	2	2.86	.764

N = 165

**Table 3:**  
 The Intention of Leaving the Teaching Profession Based on Education Category

Education Level	N	Mean	Standard Deviation
STPM/Diploma	20	3.09	.706
Undergraduate	141	3.31	.443
Others	4	2.95	.446

N = 165

**Table 4:**  
 The Intention of Leaving the Teaching Profession Based on Job

Post	N	Mean	Standard Deviation
Senior Assistant	5	3.37	.290
Head Department	6	3.57	.492
Head of Panel	37	3.23	.600
Teachers	117	3.27	.452

N = 165

(*Sijil Tinggi Persekolahan Malaysia*) or Diploma; mean score (M = 3.31, SD = .443) are taken from the undergraduate category; and the mean score (M = 2.95, SD = .446) for others.

Overall, the mean score for teacher's intention to leave the profession in every level of education is to be a mean score (M = 2.34 – M = 3.67) which is at the average level. Thus, these findings indicate the category of teacher's intention to leave the teaching profession based education was at the moderate level.

Based on table 4 shows that the findings taken from the questionnaire that the teacher's intention of leaving the teaching profession based on their job descriptions. The mean score (M = 3.37, SD = .290) is taken from the senior assistant; a mean score (M = 3.57, SD

= .492) was for the post of head department; a mean score (M = 3.23, SD = .600) was from the head of panel; and the mean score (M = 3.27, SD = .452) for those from the regular academic teachers.

Overall, the mean score for intention to leave the profession based on the demographic level of education was to be a mean score (M = 2.34 – M = 3.67) which is at the average level. Thus, these findings indicate the desire to leave the teaching profession based on their position was at the moderate level.

Based on table 5, the study showed that a mean score (M = 3.27, SD = .504) were those with the teaching length service of 6 years and under; the mean score (M = 3.22, SD = .493) were those length of service for the tenure of

**Table 5:**  
Intention of Leaving the Teaching Profession Based on Length of Service

Length of Service	N	Mean	Standard Deviation
6 Years and below	76	3.27	.504
6 – 10 years	41	3.22	.493
11 – 15 years	29	3.38	.542
16 - 20 years	11	3.34	.177
21 years and above	8	3.18	.385

N = 165

**Table 6:**  
Principal Leadership Style's in Relationship with the Intention of Leaving the Teaching Profession

		Intention of Leaving the Teaching Profession
Principal's Leadership Styles	Pearson's Correlation	.195
	Sig	.012
	N	165

p < 0.05 (2-tailed)

**Table 7:**  
Relationship between Teacher Stresses with Intention of Leaving the Teaching Profession

		Intention of Leaving the Teaching Profession
Teacher's Stress	Pearson Correlation	.293
	Sig	.000
	N	165

p < 0.01 (2-tailed)

6-10 years; the mean score (M = 3.38, SD = .542) for the tenure of 11-15 years; the mean score (M = 3.34, SD = .177) for the tenure of 16-20 years; and the mean score (M = 3.18, SD = .385) were for those teachers who have been taught for 21 years and above.

Overall, the mean score for intention to leave the profession in the service was located at the mean score (M = 2.34 – M = 3.67) which is at a moderate level. Thus, these findings indicate the teacher's intention to leave the teaching profession based on their length of service was at the moderate level.

**Second, Principal Leadership Styles Relationship with the Intention of Leaving the Teaching Profession.** H<sub>01</sub> stated that “there is no significant relationship between the leadership styles with the desire to leave the teaching profession”. Based on table 6, the results showed a significant relationship (r = .195, p < 0.05) between the leadership style with the teacher's intention of leaving the teaching profession.

Based on the interpretation of the

correlation coefficient of J.A. Davis (1971) asserts that this relationship is a positive, but weak. Therefore, the hypothesis (H<sub>01</sub>) stating that “there is no significant relationship between the leadership styles with the teacher's desire to leave the teaching profession” was rejected.

**Third, Teacher Stress Relationship with Intention of Leaving the Teaching Profession.** H<sub>02</sub> stated that “there is no significant relationship between teacher stresses with the desire to leave the teaching profession”. Based on table 7, the results showed that a significant relationship (r = .293, p < 0.01) between stress teacher with the desire to leave the teaching profession. Based on the interpretation of the correlation coefficient of J.A. Davis (1971), it indicates that this relationship is a positive, but weak. Therefore, the hypothesis (H<sub>02</sub>) stating that “there is no significant relationship between teacher stress and their desire to leave the teaching profession” were rejected.

Overall, these findings indicate that the desire to leave the teaching profession based

on demographic factors was in moderate level. This means that there is a tendency to leave the teaching profession among teachers, but did not reach the level of concern or too critical to affect the energy requirements for development of teacher education and elevate the teaching profession. This is in line with the statements of the Prime Minister of Malaysia, Datuk Seri Najib Tun Razak, during the launch of the National Education Development Plan 2013-2025, among others, has outlined eleven major shift, including the transformation of the teaching profession as the next choice to produce a high performing leaders (cited in *Mynewshub*, 13/12/2012).

Unlike explanation, Isabel Rots, G. Kelchtemes & A. Aeltermen (2012) noted that some countries were found to be lacking in the teaching profession and the problems associated with the number of applicants for the position of teacher of the very few, too many pre-service teacher educators are leaving the profession, and too many students are not interested in education to enter the teacher workforce. Similarly, the finding Akihito Shimazu (2003) stated that in 2000, of 0.24 percent of the teachers had to postpone a job as a teacher because of mental problems or stress time, the behavior of students that the students perceived in the classroom, parents, and the excessive pressure of work.

However, this scenario is quite different in Malaysia, particularly in this profession. Based on information from the Division of Teacher Education MoE (Ministry of Education) Malaysia, the number of applicants for Postgraduate Teaching Course or KPLI (*Kursus Perguruan Lepas Ijazah*) in 2009, reached up to 68,000 candidates compared to the real needs of 2,000 candidates needed only (cited in <http://www.moe.gov.my/en/praperkhidmatan>, 5/4/2014).

This study also pointed out that there is a relationship between leadership styles with a desire to stop working as teachers. This means, the leadership style is not as dominant factor to the problem. However, the relationship that exists between these two variables is not trivial at first glance. According to Abdul Ghani Abdullah, Abd Rahman Abd Aziz & Tang Keow Ngang (2008), leadership style

bias affects the emotional and physical affects teachers and teacher professionalism and their life. Long-term effects involve social problems and work performances caused teachers to be depressed, rigid quality decision making in terms of teaching and learning, increased absenteeism, and a desire to move to another school.

Leadership style, which is too geared towards a leadership style, caused a feeling of protest or dissatisfaction among teachers. Instead, variations of the leadership style that can be imparted in any circumstances are able to reduce the tension or resistance among teachers. According to Azizi Yahya, Nordin Yahya & Sharifuddin Ismail (2008), asserts that the principals's way of management that covers in all aspects in handling the teachers under his leadership is essential to absorb the pressure so as not to produce conflict among the stakeholders.

The finding is consistent with the explanation of S.P. Robbins (2000) that the critical situation certainly influences the effectiveness of leadership. The leadership styles involves structural situation in the task being performed, the quality of the leader-follower relationship, the power of the leader, follower role clarity, group norms, and conformity followers against the leader and follower maturity. The results can be correlated by F.E. Fiedler & J.E. Garcia (1987), which control the situation very well when a very good relationship with our employees can be produced; this study has been thoroughly conducted.

The result of the findings was also meets the Situational Leadership Theory proposed by P. Hersey & K.H. Blanchard (1996), which emphasizes that the leadership styles need to be flexible and must adapt themselves according to the situation that can be modify using the the situation and task, and relationship behaviors approach. Abdul Ghani Abdullah, Abd Rahman Abd Aziz & Tang Keow Ngang (2008) were also suggesting that leaders who have personally admirable teacher can reduce the desire to move or leave the teaching profession.

Path-Goal Theory by R.J. House (1993) states that the primary function of a leader is



to make an important goal for the followers or employees and outline the path to the achievement of those goals. The findings show that there is among the teachers felt their principals set goals or targets that must be taken and work accomplished, but not followed up by a factor of consideration and by proving a support and clear instructions. Situation has led to feelings of depression and unsatisfied with the type of leadership shown by the head administrator.

Despite the weak link between the leaders and subordinates, this study shows there is among teachers who intend to leave the profession due to the leadership style which sets out their goals that are too high and, at the same time, not balanced with reward factors or support that these subordinates must deserves. According to S.P. Robbins (2000), in the Path-Goal Theory, there are four behaviors identified which are the directive, supportive, participative, and achievement-oriented leaders. Therefore, Mohd Kassim Ibrahim (2003) explains that the concept of leadership that should be flexible, there must be a point and time that leaders need to incorporate more of a leadership style based on approach to the current situation in need.

## CONCLUSION

The results showed that there was a significant relationship between teacher stresses with their intention to leave the teaching profession. Although this study found a weak findings but nevertheless, this issue must be dealt with stress wisely so as not to affect the lives of our teachers, the development of the profession, and to inhibit the quality of the education system. This study reinforces the findings of the study by the NUTP (National Union of the Teaching Profession) in 2005 that found a total of 69 percent among the 9,328 respondents participated in the survey agreed that they work under stress due to the whims of students and excessive workloads (cited in Mohd Noor, 2011).

This finding can be attributed to the theory that has been discussed before. For example, the findings fit associated with models developed by J.G. Boyle *et al.* (1995) states that there are five sources of stress among teachers,

including excessive workload, the student's behaviors, and the recognition that cause stress to teachers. The study is also expressed in the level of demand that exceeds one's ability as expressed through Stress Model by J.M. Atkinson (1988). In this model indicated that the source of stress comes from external and internal pressure. External pressure as job characteristics (time limits, job abuse); social culture (competition); and physical environment (do not providing a conducive working environment) for the teachers to do their job. Meanwhile, the internal pressure involves numerous of variables such as teachers' cognitive level, teacher's work efficient, emotional and their physical health (Atkinson, 1988).

Based on this research, there are some other suggestions in related to teacher's desire to leave the teaching profession can be considered to extend the scope of the leadership style and teacher stress or other factors as appropriate. Further research could also focus on other components found in the leadership style and teacher stress factor in relationship with teacher's intent to leave the teaching profession. Possible research can be seen from another angle style as autocratic leadership, transformation, and so on focused on the stress problem.

Perhaps there are other factors as it deems appropriate stress associated with the desire to leave the teaching profession as a career opportunity, self attitudes, relationships with parents, and so on. The findings only involved leadership style and teacher stress in this research. However, the results show that the relationship of these two variables is a weak positive relationship with teacher's intention of leaving the teaching profession. Thus, there are likely other factors or other more dominant reasons that can be associated with this study.

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The findings only involved leadership style and teacher stress in this research. However, the results show the relationship of these two variables is a weak positive relationship with teacher's intention of leaving the teaching profession. Thus, there are likely other factors or other more dominant reasons that can be associated with this study.

HANNU T. KORHONEN & PAAVO NIEMELÄ

## Digestibility of Heat Treated Barley in Blue Fox and Mink

**ABSTRACT:** Carbohydrates are easy accessible raw material for fresh feed in domestic animal production. Barley, which mainly contains carbohydrates, has become more popular as an ingredient in feed for fur bearing animals in particular. The aim of the present study was to clarify the effects of heat treatment on digestibility of barley in farm-raised juvenile blue fox and mink. Two different heat treatments were compared here: (1) traditional heat treatment; and (2) specific treatment, including exposure to pressure and heat, and by gelatinization. Experimental animals were six adult males of dark standard-type mink or "neovison vison" and blue fox or "vulpes lagopus". The digestibility was evaluated by the AIA indicator method with 0.5 silicate (celite 545) serving as an inert indicator. Main components in the study feed were slaughter-house offal, Baltic herring, barley, and water. Ash content was higher in specific than in traditional diet ( $p < 0.001$ ). Crude protein content tended to be slightly higher in specific diet. In blue fox and mink, digestibility of crude protein and fat were similar in traditional and specific diet ( $p > 0.005$ ). Digestibility of carbohydrates and organic matter was significantly ( $p < 0.01$ ) better for specific than traditional diets. Heat treatment including gelatinization can be recommended to use for better utilization of carbohydrate stuff in the diet.

**KEY WORDS:** Farmed furbearers, mink and blue fox, heat treatment, feed ingredients, fur farming, carbohydrate, and digestive value.

### INTRODUCTION

Carbohydrates are cheap and easy accessible material for feed in animal production (Berg, 1986; Pölönen, 2000; and Nenonen & Pölönen, 2002). Barley, which mainly contains carbohydrates, has become more popular as an ingredient in fur animal feed. However, digestibility of barley varies in different fur animal species. This obviously holds true also for farm-raised canid and mustelid species. Further research on this subject is needed, however.

The blue fox (*vulpes lagopus*) is a colour type of wild Arctic fox. Thus, medium-size canid is farm-raised for its excellent fur coat. As a carnivore, it generally can utilize carbohydrates fairly well. The composition of the diet of wild foxes typically varies seasonally and regionally (Frafjord, 1993; and Angerbjörn *et al.*, 1994). In an Arctic habitat, foxes tend mainly to eat meat and food scraps; whereas in a coastal

area, their diet may comprise mainly fish (Nielsen, 1991). Foxes have, therefore, adapted to marked regional, annual, and seasonal fluctuations in food availability and content. See picture 1.

The mink (*neovison vison*), on the other hand, is a small-sized mustelid having an elongated body shape (Korhonen & Huuki, 2013). Due to high surface-to-mass ratio, the mink has to sustain higher basal metabolic rate than other mammals of the same body weight (Brown & Lasiewski, 1972; Iversen, 1972; and Korhonen, Harri & Asikainen, 1983). The mink typically utilize carbohydrates considerably poor. This is due to very short digestibility tract which results a short transit-period of only 4-5 hours (Sibbald *et al.*, 1962; and Jorgensen *et al.*, 1985). Furthermore, the production of carbohydrate decomposing enzyme seems to be modest in the mink (Ostergaard, 1998). See picture 2.

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**About the Authors:** Prof. Hannu T. Korhonen, Ph.D. and Paavo Niemelä, Ph.D. are Principal Research Scientist and Docent in Applied Zoology at the MTT Agrifood Research Finland, Animal Production Research, Siltmäjärventie 2, FIN-69100 Kannus, Finland. For academic purposes, corresponding author is: [hannut.korhonen@mtt.fi](mailto:hannut.korhonen@mtt.fi)

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Digestibility of carbohydrates can be influenced by certain pre-treatments during manufacturing process. Particularly, heat treatment with gelatinization is expected to improve utilization of carbohydrate components such as starch (Ostergaard, 1998). This mainly is a result of clear changes in the structure of starch kernels which become more accessible for digestible enzymes, i.e. gelatinization. The extent of changes is known to depend on water contents, temperature, and certain conditions during process.

The aim of the present study was to clarify effects of heat treatment on digestibility of carbohydrates in farmed juvenile blue fox (*vulpes lagopus*) and mink (*neovison vison*) during autumn period. This time of the year is most crucial for proper formation of body composition, fattening, and furring process. Two different heat treatments were compared here: (1) traditional treatment by extruder; and (2) specific treatment including exposure to pressure and heat, and by gelatinization (Niemelä & Korhonen, 1998). Gelatinization means here boiling of starch.

## MATERIALS AND METHODS

### *About the Experimental Animals.*

The study was carried out at the MTT Fur Farming Research Station, Kannus (63.54°N, 23.54°E), Finland, during the growing-furring period (September 24<sup>th</sup> – October 3<sup>rd</sup>, 2013). The use of experimental animals was evaluated and approved by the Animal Care Committee of MTT Agrifood Research, Finland.

Experimental animals were six juvenile males of dark standard-type mink and blue fox (blue colour type of the Arctic fox). All animals were healthy and negative for plasmocytosis. They were divided into two different diet groups, as following: (1) traditional treatment group; and (2) specific treatment group, including exposure to



**Picture 1:**  
Picture of Juvenile Blue Fox in a Wire-Netting Farm Cage  
(Photo: Pekka Eskeli, 28/10/2013)



**Picture 2:**  
Farmed Mink in Wire-Netting Cage.  
Feed is Given on Top of the Cage  
(Photo: Hannu T. Korhonen, 28/10/2013)

pressure and heat, and by gelatinization. Gelatinization was made by heating carbohydrates (starch) to  $\leq 100^{\circ}\text{C}$  (Niemelä & Korhonen, 1998). The general health of the animals was visually checked daily.

During the experiment, the animals were housed singly in a wire-netting digestibility cages in an experimental hall. Inside temperature of the hall varied from  $+6$  to  $+10^{\circ}\text{C}$ . The mink cages were 70 cm long x 30 cm wide x 38 cm high. Correspondingly, the fox cages were 105 cm long x 115 cm wide x 70 cm high. Cages were lacking enrichments like platform or gnawing object. Both in mink and blue fox, experimental animals were

genetically equal, one male kit from a single litter being taken into each of the groups.

**About the Experimental Diets.** The feed was manufactured daily by the Fur Farming Research Station, Kannus, Finland. The amounts of experimental raw materials were weighed with a balance, accuracy 10 g (Neigungswage Bauart FO, Dayton Vaaka, Finland; and Josef Florenz AG, Austria). Experimental raw materials were mixed with Stephan mixer (Stephan universal machine, type UM 44). Details of the raw materials and chemical compositions of the experimental diets are given in tables 1 and 2.

Animals were fed once a day at 8-9 am by hand. Daily feed portions were 350 g/animal and 900 g/animal for mink and foxes, respectively. Leftovers were collected the next day. Feed portions were measured with a Mettler SM 15 balance, accuracy  $\pm 1$  g. Watering was automatic *ad libitum*. Their daily routine treatments were conducted according to standard farming procedures.

## ANALYSES AND STATISTICS

Initially, animals were kept in digestibility cages for four pre-test days. Actual experimental period started after pre-test period lasting five consecutive days (September 28<sup>th</sup> – October 2<sup>nd</sup>, 2013). Faeces of the animals were collected daily and frozen. Urine was not collected.

The digestibility was evaluated by the AIA indicator method with 0.5 silicate (*celite* 545) serving as an inert indicator. Individual feed and faeces samples were taken before and during the collection period for detailed analyses. The samples were analysed at the laboratory of the Fur Farming Research Station, Kannus (MTT), Finland. Standard procedures were used for analyses of nitrogen or *kjeldahl* and fat or *HCL hydrolysis* (Korhonen *et al.*, 2005). Carbohydrates were calculated according to equation: 100- (ash + crude protein + crude fat).

The apparent digestibility was determined according to the following equation: Apparent digestibility =  $a-b/a \times 100$ , in which a = nutrient in feed/indicator in feed; and b = nutrient in faeces/indicator in faeces (Korhonen & Niemelä, 2012). The Metabolizable Energy

(ME) content of the diets was calculated using the factors 18.8 (protein), 38.9 (fat), and 17.2 (carbohydrates) per gram apparent digestibility nutrient (Tauson, 1988).

Statistical analyses were performed by the General Linear Models (GLM) procedure of the Statistical Analysis System (SAS Institute Inc., 1991) using Tukey's Studentized range (HSD) test and analysis of variance (Korhonen & Niemelä, 2012).

## RESULTS

Basic data and results can be found from tables 1-3. Ingredients of the diets are given in table 1. Main components in the feed were slaughter-house offal, Baltic herring, barley and water. This is a typical composition of farm feed for caged foxes and mink.

Chemical composition of the diets are shown in table 2. Ash content was higher in specific than in traditional diet. Furthermore, crude protein content tended to be slightly higher in specific diet.

In blue fox and mink, digestibility of crude protein and fat were similar in traditional and specific diets (table 3). On the other hand, digestibility of carbohydrates and organic matter was significantly better for specific than traditional diets. Digestibility of chemical components was better in blue foxes than in mink in general.

Solidity and general appearance of faeces was normal in each study group. Dry matter content of faeces from traditional and specific diets were in range of normal values. In mink, the dry matter content for traditional and specific diets were  $28.39 \pm 2.4$  and  $28.60 \pm 1.49\%$ , respectively. In blue foxes, the corresponding values were  $33.71 \pm 0.83$  and  $26.86 \pm 1.04\%$ , respectively.

## DISCUSSION

The main ingredients in fur animal feed are products of the fish and slaughter industries. Typically, their amounts have varied by year and season (Korhonen & Niemelä, 1998; and Pölönen, 2000). Also carbohydrates are used in the diet of farmed fur bearers. Carbohydrates are cheap substitute nutritional wise for protein and fat to meet the basal energy demands. Therefore, they should be favored more in

**Table 1:**  
 The Composition of Experimental Diets

Ingredient (%)	Traditional	Specific
Slaughter-house offal	26.09	26.54
Baltic herring	36.52	37.15
Barley	15.65	15.92
Water	20.20	18.83
Celite 545	0.50	0.50

**Table 2:**  
 Chemical Composition of Diets

Variable	Traditional	Specific
Dry Matter (DM), %	33.31	33.97
In DM, %: Ash	9.93	7.82
Crude protein	28.88	27.63
Crude fat	20.43	20.05
Crude carbohydrate	40.77	44.49

**Table 3:**  
 Digestibility (%) of Traditional and Specific Diet Components in Blue Fox and Mink

Variable	Blue Fox		Mink	
	Traditional	Specific	Traditional	Specific
Crude protein	79.97 (1.64)	79.03 (1.01)	73.92 (3.46)	77.17 (2.85)
Crude fat	91.17 (1.74)	89.87 (1.03)	77.85 (5.82)	80.10 (2.04)
Crude carbohydrate	51.75 (5.14)	71.91** (1.79)	43.51 (5.83)	69.55** (2.18)
Organic matter	66.01 (2.93)	76.81 ** (1.14)	64.78 (4.40)	75.27** (2.06)

Significant difference: \*\*p < 0.001. Standard deviations are given in parenthesis.

the diet. They are typically also beneficial for digestibility of farm feed. Therefore, use of carbohydrates should be favored more in future. However, further research is needed before implementation in practice. This study was part of this implementation project.

The decomposition of the feed substances is done by means of alimentary enzymes. Digestibility of carbohydrates demands that enzymes have enough time to work with the decompositions. Particularly, this is problem for animals like the mink with a short intestinal canal. Starch is the main component of carbohydrates. Starch can be made better digestible by “opening” its structure. This can be done by heat treatment where the material is exposed to pressure and heat, and by gelatinization. Digestibility of carbohydrates including starch may improve, because of essential change of the structure

of starch kernels which becomes more easily accessible for digestible enzymes (Ostergaard, 1998). The change of the structure is known as gelatinization. This treatment was used for our specific diet.

Comprehensive scientific interest has been to improve diet and raw material digestibility of feed in farmed fur animals. According to literature, digestibility of raw barley in mink typically is 45-52% and that of cooked barley around 60%. Carbohydrate digestibility of heated barley by extruder method, on the other hand, is 57-60% and 65-73% in mink and blue fox, respectively (Minkinkasvatus, 1967; Berg, 1986; and Niemelä & Korhonen, 1998).

In the present study, heat treatment also included gelatinization of feed stuff. The results showed that treatment significantly increased digestibility of carbohydrates both in the fox and mink. Furthermore, it was also



found that digestibility of organic matter is increased by combination of heat treatment and gelatinization.

General concept is that digestibility of feed stuff is better in farmed foxes than in mink (Niemi & Korhonen, 1998; and Korhonen & Niemi, 2012). The mink typically have a short digestibility tract thus food is passing through very fast, i.e. in 4-5 hours (Sibbald *et al.*, 1962; Jorgensen *et al.*, 1985; and Korhonen, Sepponen & Eskeli, 2013). This also impairs digestibility of food in the digestive tract. Furthermore, foxes typically are known to utilize more versatile food than mink. The present results confirm this concept. Digestibility of carbohydrates, protein, and fat tended to be better for the blue fox than for the mink. Most pronounced this tendency was for carbohydrates and organic matter.

## CONCLUSION <sup>1</sup>

The results of the present study are promising. They encourage us to continue in clarifying the suitability of various carbohydrate stuffs for farmed foxes and mink. In addition to barley also oat, for example, can be considered as a potential carbohydrate resource in future. The use of carbohydrates as a part of the feed for farmed furbearers is advantageous, while production costs can be declined by not using so much fat and protein.

The present results are also promising. They showed that heat treatment of barley with gelatinization is effective to increase digestibility of carbohydrates in farmed mink and fox diets. Digestibility of barley is better in farmed foxes compared to mink.

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NIK SURYANI NIK ABD RAHMAN

## Using Data Analysis Projects to Promote Statistical Thinking in an Introductory Statistics Course: A Basis for Curriculum Materials Development

**ABSTRACT:** Statistical thinking has long been a topic of discussion and a generally agreed upon goal for statistics instruction. Statistics involves distinctive and powerful ways of thinking. Statistics is a general intellectual method that applies wherever data, variation, and chance appear. Any introductory course should take as its main goal helping students to learn the basic elements of statistical thinking. Many advanced courses would be improved by a more explicit emphasis on those same basic elements. Those elements were described as: the need for data; the importance of data production; the omnipresence of variability; and the quantification and explanation of variability. The use of data analysis projects provides also students with the opportunity to demonstrate their ability to apply and integrate statistical knowledge and skills in analysing information statistically. This paper will describe the projects and types of statistical analysis that had been selected by 31 counselling students enrolled in an introductory statistics course at the undergraduate level. Content analysis was carried out on their final report of the projects and survey was used to elicit their experiences of working on the projects. These findings will eventually be the basis for the development of curriculum materials to help instructors and their students implement data analysis projects in their respective classrooms.

**KEY WORDS:** Counselling, projects, survey, statistical thinking, statistics, curriculum materials, and undergraduate students.

### INTRODUCTION

Statistical thinking has long been a topic of discussion and a generally agreed upon goal for statistics instruction (Snee, 1999; Chance, 2002; and Rumsey, 2002). In his influential report on the need to reform the teaching of introductory college statistics classes, G. Cobb (1992) wrote that any introductory course should take as its main goal helping students to learn the basic elements of statistical thinking. Many advanced courses would be improved by a more explicit emphasis on those same basic elements. Those elements were described as: the need for data; the importance of data production; the omnipresence of variability; and the quantification and explanation of variability.

Further, D.S. Moore suggested that statistics involves distinctive and powerful ways of thinking. He said that statistics is a general intellectual method that applies wherever data, variation, and chance appear. It is a fundamental method because data, variation, and chance are omnipresent in modern life (Moore, 1998:134). In their landmark paper, C.J. Wild & M. Pfannkuch (1999) provided an empirically-based model of statistical thinking that described the processes involved in the statistical practice of data-based enquiry from problem formulation to conclusions.

For many students, nevertheless, the prospect of taking an introductory statistics class is still daunting. R.E. Kirk (2002) reported that students believe an introductory

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*About the Author:* Assoc. Prof. Dr. Nik Suryani Nik Abd Rahman is a Senior Lecturer at the Institute of Education IIUM (International Islamic University of Malaysia) in Gombak, Kuala Lumpur, Malaysia. For academic purposes, the author can be contacted via phone: +60192244813 or e-mail: [nsuryani@iium.edu.my](mailto:nsuryani@iium.edu.my)

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statistics course to be demanding, to involve lots of math, and to be irrelevant to their career goals. Thus, R. Snee (1993) advocated changes in the instructional delivery system for statistics education citing people's lack of understanding of statistical thinking which resulted in a lack of appreciation for statistical thinking. R. Snee further suggested that experiential learning, which includes working with real data and having students work on subject matter in which they take a personal interest, are vital to improving students' understanding of statistics (Snee, 1993).

Overall, the literature suggests that using projects of some type in an introductory statistics class may positively influence learning of statistics (Garfield, 1995; Bradstreet, 1996; Moore, 1997; and Shaughnessy, 2007). However, often the projects that students in these studies were asked to do were designed by the instructor in some way. Usually, the instructor came up with at least the topic for the project. G. Smith did allow students, with prior instructor approval, to modify or replace a given project. However, he reported that students seldom asked to make these changes (Smith, 1998).

In spite of the increasing support for such projects as sound pedagogical tools for teaching statistics, many instructors still do not incorporate projects into their statistics courses (Landrum & Smith, 2007). This could be an obstacle to developing statistical reasoning and thinking among the students.

## CHALLENGES IN DEVELOPING STATISTICAL THINKING

Despite agreement on the need for statistical thinking, there have been no empirically tested instructional materials or methods that can be shown to develop such an important learning outcome. In fact, studies of student outcomes in a first statistics class show an alarming lack of statistical reasoning and thinking (delMas *et al.*, 2007).

The Guidelines for Assessment and Instruction in Statistics Education (GAISE) – endorsed by the American Statistical Association in 2005 – include the goal of developing students' statistical thinking. The report also offers examples of what this type

of thinking may look like and advocates the importance of teaching and modeling statistical thinking in the introductory statistics course (Aliaga *et al.*, 2012).

Furthermore, the report suggests that merely learning statistical content (i.e. terms, formulas, and procedures), even with real data and research studies used as a context, does not appear to lead students to think more like statisticians, along the lines described by C.J. Wild & M. Pfannkuch (1999). What is needed is a radically different approach that is designed to help students to begin to think statistically and to build on this thinking to understand and appreciate the discipline of statistics.

In this paper, I will share my experiences using data analysis projects with my students. The purpose of this study was to explore the extent to which the use of data analysis project in the course where students worked in groups would result in students' better thinking of statistics. This was done through the listing of the topics that the students themselves had chosen and the types of statistical tests they had selected to answer their research questions. In addition, I also shared what the students had thought of their experiences with the projects and the course itself. Finally, implications of the findings of this study will be discussed as a basis for curriculum materials development for the undergraduate students in the field of social science.

## THE SETTING

Beginning the first week of class, students who were enrolled in an introductory statistics course were informed of the data analysis project. For the project, students were asked to choose their own research topics, define their variables, articulate their research questions, devise and carry out a data collection plan, conduct the appropriate analysis on the data, and prepare both a written report and an oral presentation to share the results with the instructor and the rest of the class. Students were given the choice to either work individually or in small teams of 2-4 people. In short, the projects are broadly divided into three phases: the data collection phase, the data analysis phase, and the dissemination phase.

**Table 1:**  
Titles of Projects

Category	Title of Project
Conflicts and Problems.	College students' involvement in conflicts with their roommates. College students' financial problems: Causes and strategies to overcome them. Social networking addiction among college students.
Perception Studies.	Students' perception and knowledge of gay, lesbian, bisexual, and transgender issues. Perception on counselling as career.
Effect studies (v, vii, viii, and x).	Effects of co-curricular activities on college students' social development. Effects of cultural diversity on college students' social interactions. Effects of self-esteem on academic achievement. Effects of working while studying on academic achievement.
Teaching and Learning.	Can PBL (Problem Based Learning) be a powerful T&L (Teaching and Learning) tool in enhancing humanistic skills among undergraduates?

**About the Data Collection.** During the data collection phase, students gather data from constructing and administering surveys. They may choose to construct their own survey or download and adapt them from the internet. They are also encouraged to use surveys that they had used before in their research methodology class.

**About the Data Analysis.** The results are produced during the analysis phase of the project, after the data are collected and organized. The requirements for each project depend in part on their research questions for the type of test or analysis to be conducted, which are routinely taught to students during twice weekly class meetings of 2½ hours each for 12-14 weeks.

Regardless of the type of analysis required for a given project, students were strongly urged to produce the appropriate descriptive statistics, including graphical representations (e.g. histograms) of the distribution of their sample data. Students used SPSS (Statistical Package for the Social Sciences) software to accomplish these analyses.

For t-test projects, students must compute and interpret the t statistic and p-value for the test. For linear regression projects, students must create a scatter plot and a graph of the regression line; they must also compute and interpret the value of the correlation coefficient  $r$ , coefficient of determination  $R^2$ , and equation of the regression line.

**About the Dissemination.** When the students have collected and analyzed their data, the last phase of the project was to prepare a

written report and in-class presentation. Most frequently, students chose to use Microsoft Word and Power Point for these two tasks.

## RESULTS AND DISCUSSIONS

The 31 students in this class have divided themselves into 10 groups of 3 to 4 members in each. None chose to work individually.

**About the Title of Students' Research Projects.** The topics that they had selected for their group projects are as listed in table 1.

Most of the topics chosen are diversified but related to their field of specialization, that is counselling. They can be broadly categorized into four: (1) conflicts and problems; (2) perception studies; (3) effect studies; and (4) teaching and learning.

**About the Research Questions and Types of Statistical Tests.** There are many variations to the types of research questions requiring descriptive and inferential statistical tests. In this sub-section, I will list the different types of research questions that students had used to answer the descriptive as well as inferential research questions.

**First, Research Questions Requiring Descriptive Statistics.** Some questions are as follows: (1) To what extent are students involved in conflicts with their roommates?; (2) What factors contribute to the conflicts among their roommates?; (3) What do students perceive as the main reasons for their financial problems?; (4) What strategies did they use to overcome their financial problems? (5) What are the levels of social networking addiction among the college students? Are

they members of multiple networking sites?; (6) What do students perceive as the main factors contributing to their involvement in gay, lesbian, bisexual, and transgender issues?; (7) What are the students' perceptions on counselling as career?; (8) Across the faculties surveyed, students from which faculty obtained the highest level of self-esteem?; (9) What are the advantages of extra co-curricular activities to college students?; (10) How receptive are local students towards their international counterparts?; (11) What are the main reasons for students to work while studying?; (12) What is the students' overall perception of PBL, or Problem Based Learning, as a new approach of learning at the end of the semester?; and (13) What is the students' perception of PBL in developing their motivation and learning skills?

**Second, Research Questions Requiring Inferential Statistics.** For the research questions requiring inferential statistics, students' selection of statistical test is limited to t-tests, ANOVA, and correlation.

Examples of research questions using t-tests are: (1) Is there a difference between males and females with regard to their involvement in conflicts with their roommates?; (2) Which gender is more involved in financial problems?; (3) Which gender is more affected by social networking addiction?; (4) Which gender is more involved in gay, lesbian, bisexual, and transgender activities?; (5) Which gender has a better perception on counselling as career?; (6) Which gender has a higher self-esteem: male or female?; (7) Which gender is more receptive towards international students?; (8) Which gender is more involved in working while studying?; and (9) Is there any difference in the perception on effectiveness of PBL between male and female students?

All groups except one had used the independent t-tests. Further, all the research questions revolved around gender differences in the topic they had studied.

Examples of research questions using ANOVA are: (1) Is there a significant difference across courses/majors with regard to conflicts with roommates?; (2) Do students from different faculties differ in terms of their financial management?; (3) Is there any

difference between students' level of study and their social development?; and (4) Do students from difficult specializations differ significantly in terms of their perception on the effectiveness of PBL or Problem Based Learning?

The independent variables for the research questions using ANOVA are the different courses/majors/specializations, faculties, and level of study.

Examples of research questions using correlation are: (1) Is there any association between parents' income and financial problems?; (2) Is there any association between parents' income and social networking addiction?; (3) Is there any association between age and knowledge of gay, lesbian, bisexual and transgender issues?; (4) Is there any association between students' CGPA, or Cumulative Grade Point Average, and perception on counselling as career?; (5) Is there any association between CGPA and self-esteem scores?; (6) Is there any association between students' involvement in extra co-curricular activities and social development?; (7) Is there any association between fluency in English and social interactions?; and (8) Is there any association between wage earned from working and academic achievement?

All the above research questions used bivariate correlation; and each variable is at least at the interval level of measurement.

**About the Survey Findings and Interpretations.** Upon completion of their projects, students were asked to complete questionnaire seeking their satisfaction working with the data analysis project and the course itself. Findings from the survey are divided into two parts: the first being respondents' rate of satisfaction with the data analysis group project; while the second part elicited how they felt towards the course itself.

**First, What do they think of the data analysis project?** Students' experiences with the data analysis project were captured through the questionnaire items. From it, 74.2% of the respondents indicated their agreement that the topic of the project their group has chosen is related to real life situation; nevertheless, the same percentage of the respondents (74.2%) of the opinion that the project is challenging.

One of the benefits of the project that

**Table 2:**  
Respondents' Perceptions of Group Project, No (%)

	Mean (SD)	Strongly Disagree		Neutral	Strongly Agree	
		1	2	3	4	5
The group statistics project captures my interest in learning statistics.	3.06 (1.09) Skewness: -.135	2 (6.5)	9 (29.0)	7 (22.6)	11 (35.5)	2 (6.5)
The group statistics project is difficult to understand.	3.35 (1.05) Skewness: -.234	1 (3.2)	6 (19.4)	9 (29.0)	11 (35.5)	4 (12.9)
The group statistics project is challenging.	3.87 (0.92) Skewness: -1.095	1 (3.2)	1 (3.2)	6 (19.4)	16 (51.6)	7 (22.6)
The topic of the project our group has chosen is related to real life situation.	4.10 (0.87) Skewness: -.521	-	1 (3.2)	7 (22.6)	11 (35.5)	12 (38.7)
The project gives me more confident to interpret statistical data in other courses.	3.61 (0.84) Skewness: -.558	-	4 (12.9)	7 (22.6)	17 (54.8)	3 (9.7)
The project helps me understand how data is processed using the statistical tests.	3.55 (1.06) Skewness: -.764	1 (3.2)	6 (19.4)	3 (9.7)	17 (54.8)	4 (12.9)
Doing the project enhanced my learning of statistics	3.52 (1.06) Skewness: -.672	1 (3.2)	6 (19.4)	4 (12.9)	16 (51.6)	4 (12.9)
The project has prepared me to deal with statistical situations outside the classroom.	3.06 (1.12) Skewness: -.586	4 (12.9)	5 (16.1)	8 (25.5)	13 (41.9)	1 (3.2)

they had undertaken was that the project gave them more confidence to interpret statistical data in other courses (64.5%); and helped them understand how data is processed using the statistical tests (67.7%). About 64.5% of the respondents also felt that through doing the project their learning of statistics was enhanced. Although almost half of the respondents (48.4%) felt that they had difficulty in understanding the statistics involved in the project, they admitted that the projects did capture their interest in learning statistics (42%); and the project had also prepared them to deal with statistics outside the classroom (45.1%).

In addition, all responses to the items are negatively skewed. The mean, standard deviation, number of respondents, and percentage as well as skewness for the items on respondents' satisfaction towards the data analysis project is provided in table 2.

*Second, What do they think of the course?* The respondents' perceptions of the course were found to be negatively skewed, except

in two items: "Statistics is an easy subject" and "learning statistics is fun". Majority of the respondents did not agree with the first statement; that is, they were of the opinion that statistics is not as an easy subject. Hence, learning it becomes no fun.

In addition, it was rather unfortunate that before taking the course, a majority of respondents (77.4%) had heard that statistics is a difficult course; and only 35.5% of the respondents' initial attitude (that statistics is difficult) changed after attending the course. The good news, however, is that 61.3% of the respondents were of the opinion that they would be using the statistical tests to conduct research in their profession as counsellors; and 58.1% agreed with the statement that learning statistics did prepare them to be smart consumers in today's society. Finally, almost half of the respondents (48.4%) were confident that they will get very good grades in the statistics project; and 42% of them are now becoming more confident to apply statistics in future.

**Table 3:**  
Respondents' Perceptions of the course, No (%)

	Mean (SD)	Strongly Disagree		Neutral	Strongly Agree	
		1	2	3	4	5
Learning statistics is fun.	2.61 (1.20) Skewness: .085	7 (22.6)	8 (25.8)	7 (22.6)	8 (25.8)	1 (3.2)
Before taking this course, I heard that statistics is difficult.	4.03 (1.43) Skewness: -1.536	3 (9.7)	2 (6.5)	2 (6.5)	7 (22.6)	17 (54.8)
After attending this course, my initial attitude towards statistics has changed.	3.06 (0.89) Skewness: -.734	2 (6.5)	5 (16.1)	13 (41.9)	11 (35.5)	-
Many real world examples involving statistics have been included in this course.	4.0 (1.0) Skewness: -.185	- (9.7)	3 (19.4)	6 (32.3)	10 (38.7)	12
I will use statistical tests to conduct research in my profession as a counsellor.	3.68 (0.98) Skewness: -.649	1 (3.2)	2 (6.5)	9 (29.0)	13 (41.9)	6 (19.4)
Learning statistics prepare me to be a smart consumer in today's society.	3.58 (0.92) Skewness: -.661	1 (3.2)	2 (6.5)	10 (32.3)	14 (45.2)	4 (12.9)
I am more confident to apply statistics in future.	3.06 (1.09) Skewness: -.049	2 (6.5)	9 (29.0)	7 (22.6)	11 (35.5)	2 (6.5)
I will get a very good grade in the statistics project.	3.45 (1.34) Skewness: -.470	4 (12.9)	2 (6.5)	10 (32.3)	6 (19.4)	9 (29.0)

One of the groups summarized their experience in the course as follows:

Learning statistics is not something very difficult to learn, but it requires a very deep interest and concentration if students want to understand it well. And we really hope that we will continuously get the important information about statistics from time to time until we enter the world of work in the future (interview with Students Goup A, 15/10/2013).

Table 3 provides the mean, standard deviation, number and percentage as well as skewness for the items discussed above.

My present experience suggests that students are more engaged in the course material and learn the material better when involved in the group project than when presented with traditional lectures. However, it should not be viewed as the sole method for improving instruction in a heavily concept-oriented course such as statistics. Course material must be organized to meet clearly defined course objectives, and class activities and instructors must be oriented toward giving

students practice in applying difficult concepts.

In incorporating the project into the course, the instructor must also consider the impact on the instructor's in-class and out-of-class time. In courses with large enrolments, the initial establishment of group processes may take some commitment of course instructional time (Maziha Mustapha & Nik Abd Rahman, 2011).

I have found that this time is more than made up by the increased efficiency of assisting students in groups rather than as individuals. Questions may also be answered by group members, freeing the instructor to assist students in developing an understanding of the more abstract and difficult concepts.

An unexpected benefit, I have experienced from this group project, is the day-by-day feedback the instructor gets from reading and grading the material turned in by the groups. Since these papers are relatively few in number, it is not a burden for the instructor to grade them. The instructor finds out what the students understand and what must be



reviewed or re-taught. This has resulted in an experiential learning process that enables the students to integrate critical thinking, technical writing, and presentation skills into an analytical course thus promoting statistical thinking.

## CONCLUSION

In conclusion, three main practical implications can be drawn from this study. *First*, the teachers and the researcher need to come to a common consensus of what they mean by the term statistical thinking. *Second*, the teachers need to reflect critically on their current teaching and identify areas which are acting as barriers to the development of their students' statistical thinking. *Third*, the identification of the current main barriers to statistical thinking led the researcher to designing a new statistics teaching unit. New activities were chosen on the basis that they would be interesting to the students and would allow sufficient exploration of the data within an empirical enquiry process.

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**Students should be Promoted toward the Statistical Thinking**  
(Source: [www.google.com](http://www.google.com), 12/5/2014)

Regardless of the type of analysis required for a given project, students were strongly urged to produce the appropriate descriptive statistics, including graphical representations (e.g. histograms) of the distribution of their sample data. Students used SPSS (Statistical Package for the Social Sciences) software to accomplish these analyses.

## BIPA Learning Material Development for Empowering Thailand Students' Writing Competence

**ABSTRACT:** Thai students have come and studied at the UMP (Muhammadiyah University of Purwokerto) in Central Java, Indonesia. So, "Bahasa" Indonesia (Indonesia language) is needed as a communicative language to deliver lecture. "Bahasa" Indonesia has important role, either nationally or internationally, because foreign students are interested in studying here. The foreign learners study the "Bahasa" Indonesia as second language (foreign language) with the academic and practical purposes. BIPA stands for "Bahasa Indonesia untuk Penutur Asing" (Teaching Indonesian Language for Non-Native Speaker) develops in UMP to fulfill the need of foreign students. The study was aimed at analyzing language aspect difficulties on writing paper and developing BIPA material to improve students' writing competence. This article highlight the process nine Thai students on their writing process. The data were collected through paper and writing task in first semester. The mistake classifications are word reduplication, the usage of "n", "m", "f", and "v", English word, the confusing between "ng" and "g", the affix mistakes, the mistakes of "a", "i", "u", "e", and "o". Syllabus and BIPA learning material to support them understanding "Bahasa" Indonesia well. Most Thai students tried hard to master "Bahasa" Indonesia for their study here. There are two suggestions to develop BIPA learning material: it needs a good methodology and learning material; so, the teacher can manage it well and a further research beside the writing skill itself.

**KEY WORDS:** Thai students, Indonesian language, difficulties, foreign language, writing skill, syllabus development, and learning material.

### INTRODUCTION

WCU (World Class University) is not only prestige to be considered higher quality than other university in Central Java, Indonesia, but also a need. UMP (Muhammadiyah University of Purwokerto) launched its tagline by consideration to raise competition spirit with other universities. There are some MoU (Memorandum of Understanding) signed by UMP and other university to join cooperation on education. Example: fifteen South Thai students study here and took different departments. Some guest lecturers often come to give public lecturing and guide lecturer research in this campus and vice-versa we go to other campus to deliver lecture.

One of the requirements being WCU is English mastery and international class which

is used English as communication language, the international qualified facilities, well-prepared learning curriculum and learning process, many things to be a highest service. This condition will take long time to prepare international classroom, because not all of lecturers master English either written or oral, especially in teaching activity.

Thai students come and study here and UMP does not have international class yet. So, Bahasa Indonesia (Indonesia language) is needed as a communicative language to deliver lecture. Bahasa Indonesia has important role, either nationally or internationally, because foreign students are interested in studying here. The foreign learners study the Bahasa Indonesia as second language (foreign language) with the academic and practical

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*About the Authors:* Laily Nurlina and Eko Sri Israhayu are Lecturers at the Faculty of Education and Teacher Training UMP (Muhammadiyah University of Purwokerto), Jalan Raya Dukuhwaluh, Purwokerto City, Central Java, Indonesia. For academic purposes, the authors can be contacted via e-mails at: [march\\_nur@yahoo.co.id](mailto:march_nur@yahoo.co.id) and [ayuisrahayu@yahoo.co.id](mailto:ayuisrahayu@yahoo.co.id)

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purposes (Dardjowidjojo, 1994:3). It takes time to prepare students speaking and writing in *Bahasa Indonesia*, while they used to speak Thai and Malay languages before.

The academic purpose are directed as knowledge to learn linguistic and literature, such as *Bahasa Indonesia* learnt by Mahroso Doloh from South Thailand who took the Indonesian Education and Literature Program in UMP. In 2014, Mahroso Doloh succeed to publish his own masterpice, *Thai – Bahasa Indonesia Dictionary*, which very useful for further Thai students will study in Indonesia. While the practical purpose is geared for the self-interest, example Indonesian used as daily conversation with friends, lecturer, and to ease understanding of learning process. It shows by Aisyah Doloh, Mirfat Chehama, Rosuenece Islam, Kareemah Maming, Sofiah Samoh, Iswande Sa-e, Abdulloh Makeh, Saripah Yakoh, and others.

*Bahasa Indonesia* learning process for Thai students in a course have conducted twice. The learning evaluation was documented in previous research by title “The Analyzes of Indonesian Writing Mistakes in Narrative Text: A Study to Find Alternative BIPA Learning in UMP”. The results shows that the Thai students do not get any difficult to communicate in daily life. They can understand other people and they communicate by using simple Indonesian terms. It means that the foreign students have good speaking ability of Indonesian, but how about the writing ability? Confusing, because their score of GPA (Grade Point Average) are not good, even under average.

Malay language and *Bahasa Indonesia* are similar, but they are very different, especially in meaning context. They think that Indonesian and Malay languages have same vocabulary and grammar. One of the problems to boost their *Bahasa Indonesia* competence written and orally is they always speak Thai and Malay languages outside the course.

By using informal conversation, we can find that the students got difficulty on writing paper



**Picture 1:**  
Mahroso Doloh and his *Thai – Bahasa Indonesia Dictionary*

and answering the test. The students can not write paper and express their idea, opinion, and argumentation. They know how to write it, the form, the systematics, but difficult to write their thought; so, their works still lack of coherence. It is quite frustrating, because almost all of the subject demand the students competence on writing.

The lecturer will not differ where do the students come from or their *Bahasa Indonesia* ability. All of the students must write paper and present them in front of the audience and then discuss the content. This problem needs to be solved soon, so the students will feel enjoy, motivate, and eager to achieve on studying.

Muhammadiyah University of Purwokerto always receives South Thai students every year. They will study about 3.5 – 4 years in Indonesia. It is urgent to do research by using basic data of difficulties on writing to increase their competence. The purposes of this research are: (1) analyze language aspect difficulties on writing paper; and (2) develop BIPA material to increase on writing paper competence (cf Straus, 2009; and Cresswell, 2010). It is expected that the result of research will help further foreign students to study in Purwokerto, Central Java, Indonesia. They can write and speak *Bahasa Indonesia* better than Thai students today.

## LITERATURE REVIEW

### *On the BIPA Teaching in Muhammadiyah University of Purwokerto.*

BIPA (*Bahasa Indonesia untuk Penutur Asing* or Teaching Indonesian Language for Non-Native Speaker) has been implemented since September 2012 for South Thailand students. This learning process is carried out without any preparation of syllabus, lesson plans, or teaching materials, so that its implementation is still limited to assist students in the preparation daily communication. The researchers as tutors taught them by taking various materials from magazine, newspaper, and so on. It was not focus on different students' ability and contextual condition. The time for learning process took only 2 weeks up to 1 month for listening, speaking, reading, and writing. The students found the difficulties to understand and practice their *Bahasa Indonesia* well. They were confused to differ between *Bahasa Indonesia* and Malay language.

According to P. Suyata (2000:6), the foreign students learn *Bahasa Indonesia* by having various purposes, from just want to communicate in daily life, such as talking to the driver, bargaining on selling and buying activity, until master Indonesian language for official purpose, such as attending lectures or teach Indonesian. They studied *Bahasa Indonesia* as medium language to master other knowledge such as in UMP (Muhammadiyah University of Purwokerto) did.

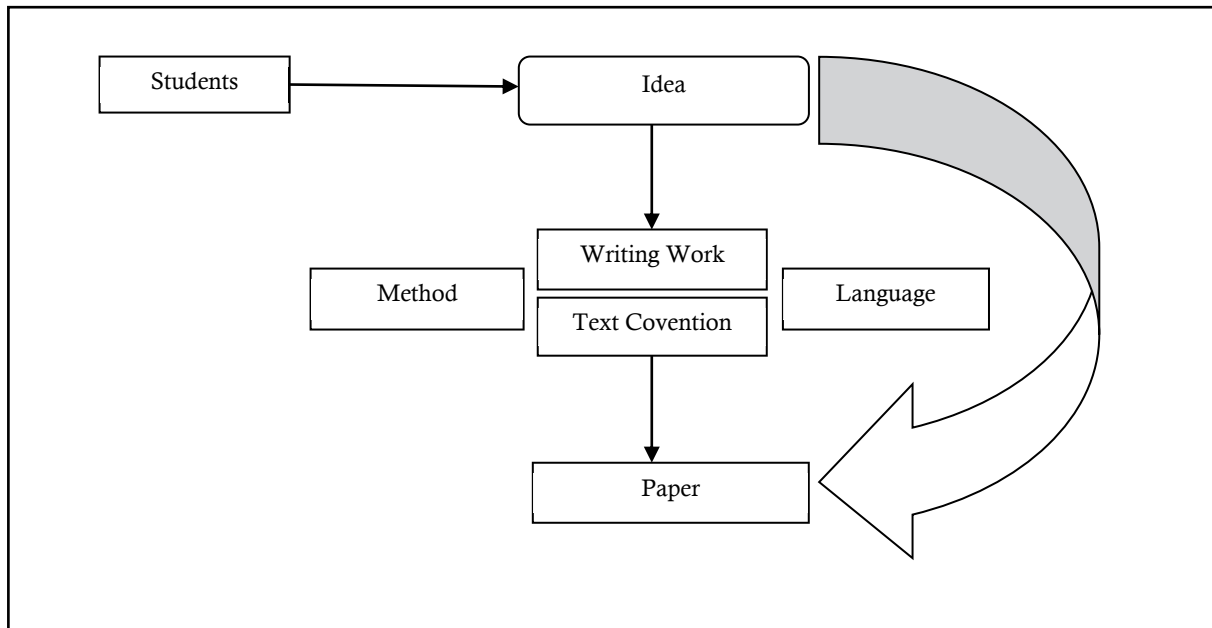
Thai students learnt *Bahasa Indonesia* as a communication tool, not as a language to be memorized or analyzed. Indonesian language is functioned as a means of communication, both orally in daily life, written as the writing assignment, or other text. Materials such as grammar are integrated in communicative learning, so it is easy to be accepted by foreign students. They practised speaking through shopping in a store, money changer, admission, and other places supported and encouraged them to speak (*cf* Ellis, 1986; and Kentjono *et al.*, 2004).



**Picture 2:**  
At Thailand Embassy: Handover Thai Students to UMP  
(Muhammadiyah University of Purwokerto) in 2013

At the beginning of learning BIPA, the objectives to be achieved by the tutor are to improve the ability to communicate in daily life, such as in the neighborhood as well as on campus. Based on the learning outcomes that have been achieved, Van Eck explains that the goal of language teaching requires communication components, as follows: (1) the situation underlying the usage of language, including the role of speaker, background, and the subject; (2) linguistic activities of what will need to be carried out by the learner; (3) the language function will be implemented by learners in the usage of language; (4) what the learner can be implemented on any subject; (5) the general notion of what would be handled by learners; (6) what specific concepts handled by the learner later; (7) any form of language used by the learner; and (8) the level of skill that would be manifested by learners (in Suyanto, 2009).

Fiction or non-fiction writing needs ability to express idea in a sentence and understanding syntaksis to organize them in coherence idea. Thai students got difficulties on writing, because writing skill covers very complicated competence and high level linguistics competence. Language mistakes can be classified into close and open mistake. Open mistake is language mistake in grammar that can be highlight in their sentences.



**Graphic 1:**  
The Scientific Writing Skills of Students

Close mistake is hidden, the sentence is well systematic grammar but incorrect semantics (*cf* Hayes & Flower, 1986; Littlejohn, 1991; and Sneddon, 1996).

Ismorosiyadi (2011) states that the paper is students' scientific papers on a particular topic covered in the scope of a lecture. This paper is one of the requirements for completing a lecture, either in the form of literature review and the results of field lectures. Another common opinion, we find that the paper is a systematic and comprehensive text in the form of outlines for a given problem, and is written with the approach of one or more specific disciplines, whether it elaborate on their opinions, ideas and discussion in the context of problem solving (Hastuti, 1989).

Writing is an activity categorized as a form of communication. Communication is an interaction process of ideas, thoughts, and ideas of one person to another. According to Sembiring, there are four factors that cause students trouble of writing that is less reading, less practice writing, confusion in thinking, and ambiguity in the language (in Hastuti, 1989). Scientific writing skills must be possessed by students everywhere.

According to Suhardjono (2006:46), scientific papers have in common with other

types, such as: (1) the area in question is located on scientific knowledge; (2) the truth of its contents refer to scientific truth; (3) the grain framework and reflects the application of the scientific method; and (4) physical appearance according to the manner of writing scientific papers. How the mindset of students trained in making paper? The graphic 1 shows the scientific writing skills must be possessed by students everywhere.

**On the Definition of Instructional Materials.** Learning process needs learning resources and preparation in the form of teaching materials. Instructional or teaching material consists of a word that means teaching and teaching material or materials. Implementation learning (teaching) is defined as the process of creating and maintaining an effective learning environment (Sanjaya, 2008). While the material, according to Paul S. Ache, is the book can be used as reference material, or can be used as a writing material weighing (in Nurgiyantoro, 2010).

Teaching materials are all forms of material used to assist educators in implementing the teaching and learning activities in the classroom. This material can be written or unwritten. According to K.J. Eltis (1991), teaching materials is a set of material/

**Table 1:**  
The Function of Teaching and Learning Material

No.	For Teacher	For Students
1	Time efficiency on teaching.	Students can learn without teacher or friends.
2	Change from teacher to facilitator.	Students may study every where and every time.
3	Learning process will be more effective and interactive.	Learn based on their choice.
4	-	Study sistematically and arrange by their competence.
5	-	Being autonomous students.

Source: Tian Belawati (2003:117).



**Picture 3:**  
The Situation of BIPA Learning Process

substance of learning (teaching materials) that systematically and well-arrangement, showing full figure from which students will learn competencies in learning activities.

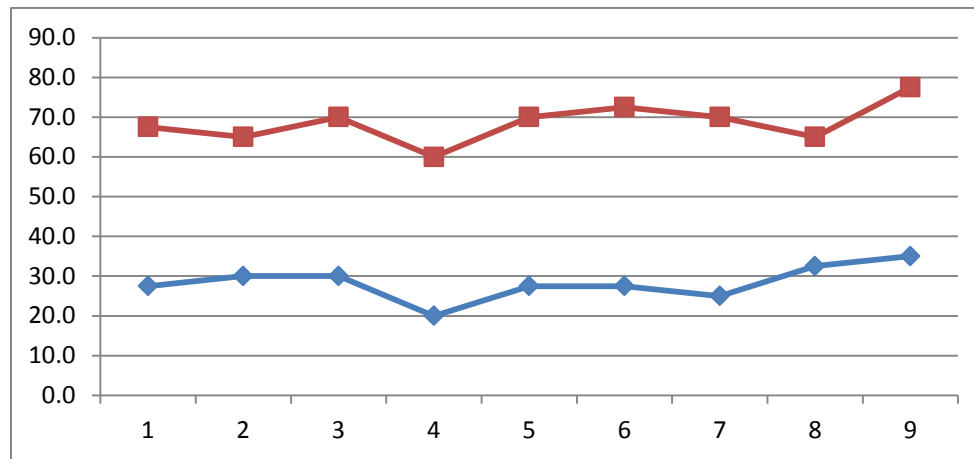
The function of teaching materials, among others: (1) guidelines for teachers who will direct all activities in procedural learning; (2) guidelines for students who will direct all the activities in the learning process; and (3) an evaluation tool achievement/mastery of learning outcomes (Sanjaya, 2008). So, from the entire description can be interpreted that the material is a set of teaching materials systematically arranged so as to create the environment/atmosphere that allows students to learn.

Why do we need BIPA (*Bahasa Indonesia untuk Penutur Asing* or Teaching Indonesian Language for Non-Native Speaker) teaching material preparation? Teaching material is an important component in the implementation of learning, both educators and learners, so that both will be very helpful and easy to learn. Teaching materials can be made in

various forms according to the needs and characteristics of teaching materials that will be taught (Widjono, 2005).

BIPA teaching materials are prepared with the purpose of providing instructional materials to suit the needs of students from Thailand, who had studied for one semester at the UMP (Muhammadiyah University of Purwokerto) in Central Java, Indonesia, by adjusting the majors and the problem to be addressed. Besides teaching materials, BIPA assist students in obtaining alternative teaching materials that are usually difficult and less appropriate to be used, and most importantly with the BIPA teaching materials facilitate tutors and learners to carry out learning.

A teacher who developed the teaching materials will have some benefits. *First*, they obtain teaching materials appropriate to the learning needs of the student or students. *Second*, they are no longer dependent on the textbook sometimes difficult to get. *Third*, teaching materials become richer, because developed using a variety of references.



**Graphic 2:**  
Comparison of Writing Competence

*Fourth*, increase the repertoire of knowledge and experience of the teacher or lecturer in writing instructional materials. *Fifth*, teaching materials will be able to build effective learning communication between teachers/lecturers and students.

Many teaching materials will make BIPA learning more interesting; learners will have opportunity to learn a lot more independent on the presence of the teacher's explanation. They can study themselves and explore their knowledge by guiding the material. Teacher facilitate them by giving some clear instructions and resources media learning like library, internet, and students to guide them.

Learning resources is information represent and keep in some media, able to help students as curriculum. It is unlimited whether printing, video, software, or combination that can be used by students. As pointed out by Arief S. Sadiman *et al.* that learning resource is anything as learning aid such as people, thing, message, material, technique, and background (Sadiman *et al.*, 2008:3). Other argued that learning resource is any kind energy to be done by teacher separately or combining to improve effectiveness and efficiency learning purpose (Arsyad, 2011). In this study, teacher creates syllabus, material, handout, and modul to encourage Thai students' writing competence, so they can fulfill the assignment better than before.

This study took in the UMP (Muhammadiyah University of Purwokerto)

in Central Java, Indonesia, especially in BIPA classes. It is held outside the regular lecture time + 4 months from issue identification process of writing a paper to the management of learning and teaching materials manufacture. The previous paper was analyzed, so we can find the mistakes on vocabulary and grammar. The variables in this study include the independent variable is "BIPA teaching materials"; the dependent variable is "the ability to write papers".

The results are compared and analyzed errors – common errors; and the researchers developed a syllabus and teaching materials BIPA learning. So, the product of this research is the syllabus and teaching materials BIPA learning. The study is simple research and development method, so we need to examine the effectiveness of BIPA material.

## RESULTS AND DISCUSSION

Comparison of writing competence before and after study conducted using BIPA (*Bahasa Indonesia untuk Penutur Asing* or Teaching Indonesian Language for Non-Native Speaker) teaching materials are showed in graphic 2.

The graphic 2 shows that the differences score between before and after the learning process by using BIPA material. We can see that every students gets the improvement score. The indicator writing score includes vocabulary, diction, grammar, systematic writing, and the contents.

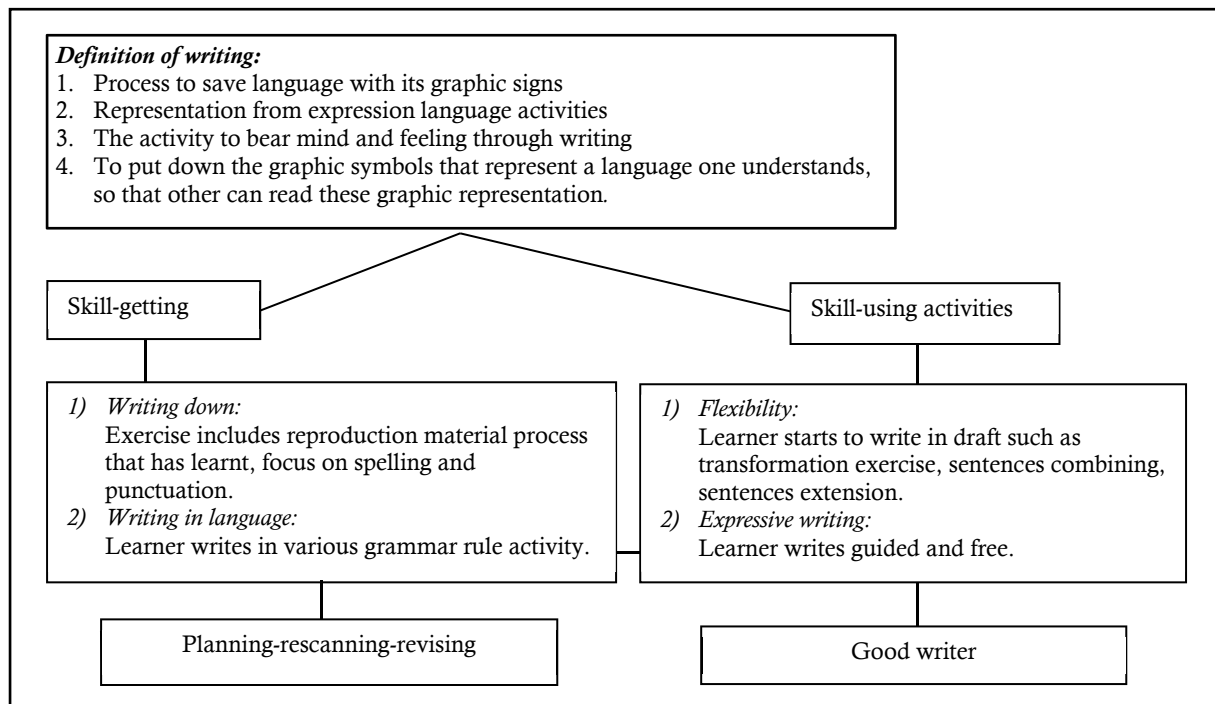


**Table 2:**  
The Mistake Classification of Paper Writing

NO	CLASSIFICATION	MISTAKES	CORRECTION
1	<i>Kata ulang</i>	<i>Peparu</i> <i>Plan-plan</i>	<i>Paru-paru</i> <i>Pelan-pelan</i>
2	<i>N / M</i>	<i>Pansangan</i> <i>Menyembakkan</i> <i>Mamun</i> <i>Menentapkan</i> <i>Lapiran</i>	<i>Pasangan</i> <i>Menyebabkan</i> <i>Namun</i> <i>Menetapkan</i> <i>Lampiran</i>
3	<i>F / V</i>	<i>Fariasi</i> <i>Aktifitas</i>	<i>Variasi</i> <i>Aktivitas</i>
4	<i>Istilah asing</i>	<i>Tisu-tisu</i> <i>Diceraikan</i> <i>Automatik</i>	<i>Jaringan</i> <i>Dipisahkan</i> <i>Otomatis</i>
5	<i>Pengaruh Bahasa Melayu</i>	<i>Pemendaman rawatan dadah</i> <i>Chomotherapy</i> <i>Sesetengah ketumbuhan</i> <i>Terbina</i> <i>Bahagian</i>	<i>Penundaan perawatan narkotika</i> <i>Komeoterapi</i> <i>Masalah pertumbuhan</i> <i>Terbentuk</i> <i>Bagian</i>
6	<i>Imbuhan</i>	<i>Terlekat</i> <i>Penelitian ini dengan berjudul</i> <i>Mengaturan</i> <i>Lebih menguntungkan</i>	<i>Melekat</i> <i>Penelitian ini berjudul</i> <i>Mengatur</i> <i>Lebih menguntungkan</i>
7	<i>G / NG</i>	<i>Melindungi</i> <i>Tergantung</i> <i>Bagun pagi</i> <i>Bersingungan</i> <i>Mengunakan</i> <i>Menunggu</i> <i>Ditungiang</i> <i>Mingu</i>	<i>Melindungi</i> <i>Tergantung</i> <i>Bangun pagi</i> <i>Bersinggungan</i> <i>Menggunakan</i> <i>Menunggu</i> <i>Ditunjang</i> <i>Minggu</i>
8	<i>A / I / U / E / O</i>	<i>Kerana</i> <i>Mendetaksi</i> <i>Menjelani</i> <i>Kesihatan</i> <i>Kesimpulan</i>	<i>Karena</i> <i>Mendeteksi</i> <i>Menjalani</i> <i>Kesehatan</i> <i>Kesimpulan</i>



**Picture 4:**  
The Enjoyable Situation of BIPA Teaching-Learning Process



**Graphic 3:**  
 The Learner as a Good Writer

**Table 3:**  
 Developing Syllabi and Material

No	Basic Competence	Description	Time
1	Able to use simple words and phrases for example greeting, signs, and announcement in public places.	<ul style="list-style-type: none"> <li>▪ Greetings.</li> <li>▪ Address someone.</li> <li>▪ Signs, announcement, etc.</li> <li>▪ Simple conversation in public places.</li> </ul>	6 meetings @ 90 minutes
2	Know and understand Banyumas culture and tourisms.	<ul style="list-style-type: none"> <li>▪ Batik.</li> <li>▪ Sokaraja traditional paintings.</li> <li>▪ Baturaden.</li> </ul>	2 meetings @ 90 minutes

Those table 2 shows some interesting cases such as: (1) Diction is word choice and spelling for giving certain effect to speak and write something; (2) Spelling is how to spell a letter and standar writing, usually phonology aspect about describing phonem and letter, morphologys aspect and syntax; (3) Grammar or structure is combining meaning context to form meaningful sentences; (4) The influences of Malay language or interference is using other language or interfering dialect to *Bahasa Indonesia*; (5) Punctuation is graphic sign to use convensional to separate one thing to others that can influence meaning; and (6) Ineffective sentence is sentence consist of words or phrases repeatedly and useless (*cf*Hidayat, 1998).

Writing is communicative action as an effort to share observation, information, mind or idea, and experience to other people (Cohen & Riel, 1989). As a good writer, the learner can be described in graphic 3.

The theory shows that the sequences of writing process and the students need to boost their vocabularies. John Norrish reported as follows:

[...] it was vital that people should be educated to construct grammatically acceptable sentence and be able to spell correctly [...] because of this, a great deal of attention has traditionally been given to writing and error in the medium tend to be regarded as indicative of some type of failure (Norrish, 1983:65).

**Table 4:**  
The Contents of Syllabi

No	Theme	Material
1	Regards	<ul style="list-style-type: none"> <li>• Say “<i>Assalamu’alaikum</i>” can be used every time.</li> <li>• “<i>Selamat Pagi/Siang/Sore/Malam</i>” depends on time.</li> <li>• Differences greeting in Indonesia and the students’ country.</li> <li>• Speaking practise.</li> </ul>
2	Greetings	<ul style="list-style-type: none"> <li>• Introducing greetings.</li> <li>• The usage “<i>Apa kabar?</i>”</li> <li>• Miscellaneous/courtesy in daily life.</li> <li>• The different culture to greet in Indonesia and students’ country.</li> </ul>
3	Sign, announcement, label, and its usage	<ul style="list-style-type: none"> <li>• Introducing simple signs “<i>Parkir, Dilarang parkir, Belok kanan/kiri, Belok kiri jalan terus</i>” etc.</li> <li>• Introducing announcement “<i>Dilarang merokok di sini, Silahkan mengisi formulir, Silahkan antri</i>” etc.</li> <li>• Introducing medicine, food, soap label, etc.</li> <li>• Explaining the advantages each signs/label/announcement.</li> <li>• Introducing campus and its environment.</li> </ul>
4	Number	<ul style="list-style-type: none"> <li>• 1-100.</li> <li>• Introducing currency <i>Rupiah</i>.</li> <li>• Introducing number, time, and calendar.</li> <li>• The differences culture, time, and discipline between Indonesia and student’s country.</li> </ul>
5	Time	<ul style="list-style-type: none"> <li>• How to read 9.15 (<i>sembilan seperempat/sembilan lima belas menit</i>, etc)</li> <li>• The importance of coming on time.</li> <li>• Shock culture about time.</li> </ul>
6	Time differences	<ul style="list-style-type: none"> <li>• Morning/afternoon/evening/night, and the time .</li> <li>• Introducing etiquette calling, sms, meeting, and the right time.</li> <li>• Introducing special days in Banyumas: birthday, independence day, <i>Ramadhan</i>, etc.</li> </ul>
7	Visiting <i>batik</i> and traditional Sokaraja paintings	<ul style="list-style-type: none"> <li>• <i>Batik</i> Banyumas has special motif which is called <i>Mengruyun</i>, its size, picture, and colour different from other <i>batik</i>. Students practise to “<i>membatik</i>” in gallery.</li> <li>• Famous Sokaraja paintings is naturalist and so interesting. Students learn how the process and wide information about Banyumas.</li> </ul>
8	Visiting Baturaden	<ul style="list-style-type: none"> <li>• Baturaden is tourist resort around 30 km from Purwokerto. Its cool weather attract to come surrounding peace and beautiful view to stay decorating colourful flowers.</li> </ul>

Related to the difficulties of BIPA (*Bahasa Indonesia untuk Penutur Asing* or Teaching Indonesian Language for Non-Native Speaker) teaching, D. Sunendar pointed some problems, namely: (1) lack of good impression; (2) difficult to decide or found material; (3) teacher and learner trapped on grammar or structure; and (4) different character letter with *Bahasa Indonesia* (Sunendar, 2000).

Those problems can be solved by developing syllabi and material to teach Thai students as showed in table 3.

From the details of the material, the

students begin to understand the use of vocabulary and grammar in formal and informal communication as well as oral and written communication distinguish. Development of syllabus and details of the material is then developed in the form of a simple module making it easier for students to study systematically.

The ability to write gradually improved with the guidance of tutors informally as teaching BIPA (*Bahasa Indonesia untuk Penutur Asing* or Teaching Indonesian Language for Non-Native Speaker) has been completed at the beginning

of the academic year. Students have studied the systematics used in the UMP (Muhammadiyah University of Purwokerto) in Central Java, Indonesia, so that tutors do not need to be taught from the beginning. More emphasis on the use of vocabulary and grammar, because of the ambiguity between the Indonesian and Malay languages that be controlled by the students from Thailand.

## CONCLUSION

This study concluded that the preparation of Indonesian language learning is absolutely necessary for foreign students from Thailand to minimize the difficulties of students when studying at the UMP (Muhammadiyah University of Purwokerto) in Central Java, Indonesia, two errors – errors that commonly occur should continue – constantly guided, so that foreign students will not have too much difficulty in writing final project later (thesis) and three professors and academic advisor very big role in the success of foreign students for study at UMP.

Suggestions can be given is a learning methodology and BIPA (*Bahasa Indonesia untuk Penutur Asing* or Teaching Indonesian Language for Non-Native Speaker) requires proper teaching materials, so that teachers/tutors are given a task to be really-really able to manage it and the two need to do further research on other language skills such as reading, talking, and listening to the repertoire of knowledge about BIPA at UMP more complete. Previous research has been conducted on the subject of BIPA which took narrative writing student from Thailand.

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## A Comparative Study of the Attitudes of Muslim and Non-Muslim Prospective Teachers towards Teaching Profession

**ABSTRACT:** Securing the right type of prospective teachers for training is very crucial. Unless such prospective teachers are found our secondary schools cannot deliver as per our expectations. Therefore, for the professional preparation of prospective teachers, the study of attitudes held by them is very important. This study was conducted to study the attitudes of Muslim and Non-Muslim prospective teachers towards teaching profession. A sample of 360 prospective teachers i.e. 200 Muslim and 160 Non-Muslim prospective teachers was taken through purposive sampling technique. Teacher Attitude Inventory (TAI) developed by S.P. Ahluwalia (2007) was used to collect the data. Mean, SD (Standard Deviation), and t-test were used for the analysis of the data. Research findings revealed not significant differences in the attitudes of Muslim and Non-Muslim prospective teachers; Muslim and Non-Muslim male prospective teachers; Muslim and Non-Muslim female prospective teachers; Muslim and Non-Muslim Science prospective teachers; Muslim and Non-Muslim Social Science prospective teachers; Muslim and Non-Muslim prospective teachers studying in public B.Ed. (Bachelor of Education) institutions; whereas a significant difference was found between the attitudes of Muslim and Non-Muslim prospective teachers studying in private B.Ed. institutions towards teaching profession. Muslim prospective teachers studying in private B.Ed. institutions had a more favourable attitude towards teaching profession as compared to Non-Muslim prospective teachers studying in private B.Ed. institutions.

**KEY WORDS:** Prospective teachers, Muslim and Non-Muslim teachers, teaching profession, favourable and unfavourable attitudes, and public and private B.Ed. institutions.

### INTRODUCTION

Education means to open up hidden talent of a child. It is an activity as well as a process which helps students in attaining needed information and knowledge, ability, attitude, and perception (Mirunalini & Anandan, 2012). The quality of a nation depends upon the quality of its citizens. The quality of the citizens depends upon the quality of education system, and the quality of education depends upon the combined efforts of planners, educationists, and administration; however, the most significant factor is the quality of the teachers. It means excellent and efficient teachers can change the fate of the nation.

In fact, it is in the schools, colleges, and universities that the development of the attitudes and dispositions necessary for the progressive life in a society takes place. Education is imparted by teachers' schools, colleges, and universities. If the teacher is capable, energetic, mentally healthy, and having positive attitude, it is well and good for the whole education system. A teacher helps a child in bringing out the hidden capabilities. He unfolds what is within, hidden, and untapped. He makes explicit what is implicit in the students. So, teachers' importance in teaching-learning process is very much. The Secondary Education Commission (1952-1953) report stated as follows:

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*About the Authors:* Dr. Mohammad Parvez is an Associate Professor at the Department of Education AMU (Aligarh Muslim University), Aligarh, 202002 Uttar Pradesh, India; and Dr. Mohd Shakir is an Assistant Professor at the Department of Education AMU, Murshidabad Centre, 742223 West Bengal, India. For academic purposes, the authors can be contacted via e-mails at: [mparvez9@yahoo.co.in](mailto:mparvez9@yahoo.co.in) and [aligarhshakir@gmail.com](mailto:aligarhshakir@gmail.com)

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We are convinced that the most important factor in the contemplated educational reconstruction is the teacher, his personal qualities, his educational qualifications, his professional training, and the place that he occupies in the community. [...] It is very right that, "No people can rise above the level of its teachers" (GoI, 1953:155; and GoI, 1986:31-32).

The teacher is the real and dynamic force of any institution. The school without him is a sole less body. Without good, devoted, and competent teachers, even the best system is bound to fail. A good teacher can certainly give best result out of the worst system (Parvez, 2010:58-59). He is a powerful and abiding influence in the formation of character; the influence of a great teacher indirectly extends over many generations. The pivot upon which an educational system moves is the personality of the teacher.

Teaching is often called a calling, not a profession or a trade or simply a job. This means that a teacher should regard himself as one specially called to do this work, not so much for the pecuniary benefits which he may derive from it as for the love of it (Mohiyuddin, 1943). The strength of the schools depends upon the attitudes of the teachers. For qualitative improvement in secondary education of our country, the selection of right type of prospective teachers is a must. This require not only improving the knowledge and teaching competence of prospective teachers, but also to inculcate in them healthy professional attitudes and desirable teacher like qualities.

Therefore, securing the right type of prospective teachers for training is very crucial. Unless such prospective teachers are found our secondary schools cannot deliver as per our expectations. Therefore, for the professional preparation of prospective teachers, the study of attitudes held by them is very important. A positive favourable attitude makes the work not only easier but also more satisfying and professionally rewarding. A negative or unfavourable attitude makes the teaching task harder, more tedious, and unpleasant. Thus, effective, productive, and constructive learning on the part of the pupils can be achieved by employing teachers with favourable attitudes towards teaching profession.

## PROSPECTIVE TEACHER

Prospective teachers are those who are undergoing training or studying in B.Ed. (Bachelor of Education) programme to become teachers; and they are known by different names like "would be teachers", "pupil-teachers", "student-teachers", "future-teachers", "B.Ed. trainees", etc. And when their training period is over, they join the coveted profession of teaching and become full-fledged teachers.

*About the Attitude.* The most important factor in the teaching-learning process is the teacher. A good education system can flourish if two conditions are satisfied. Firstly is the constant updating and refinement in knowledge and skills of existing/serving teachers; and secondly is equipping upcoming/prospective teachers with positive attitude towards their profession of teaching.

Attitudes towards profession are usually related with enjoying the profession, complete dedication to their profession, and being aware that profession is socially useful and believing that they need to improve the profession. C.V. Good defined "attitude" as the predisposition or tendency to react specifically towards an object, situation, or value; usually accompanied by feelings and emotions (Good, 1973:49).

According to L.L. Thurstone, "attitude" is the degree of positive or negative effect associated with some psychological object. By psychological object, L.L. Thurstone means any symbol, phrase, slogan, person, institution, ideal or idea towards which people can differ with respect to positive or negative effect (Thurstone, 1946). G.W. Allport defined "attitude" as a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individuals response to all objects and situations with which it is related (Allport, 1935).

In the words of E. Katz, an attitude is a tendency or disposition to evaluate an object or the symbol of that object in a certain way. An attitude is an important concept to understand human behavior (Katz, 1959). As behaviour is composed of many attributes and one of these important attributes is attitude. Ones behaviour

to a great extent depends upon one's attitude towards the things, idea, person, object in his environment (Mangal, 2009). In this way, attitudes are to a great extent responsible for a particular behaviour of a person.

In simple words, attitudes are "pre-dispositions" to behave in a certain way. Attitude is defined as preference along a dimension of favourableness and unfavourableness to a particular group, institution, concept, or object. A person with a favourable attitude toward something is likely rate favourable and an unfavourable attitude presumes a tendency to reject something (Sax, 1974). An individual's attitude towards his occupation may affect the end-product.

It has been observed that someone who does not enjoy his occupation is not be able to succeed in that occupation. A good teacher with positive attitude, behavior, and personality traits can motivate, inspire, and make students lost in his teaching. A teacher with a positive attitude towards teaching is considered better and becomes popular figure among students. Positive attitudes not only promote learning, but also create the climate which stimulates effective teaching-learning (*cf* Pehlivan, 2010; and Parvez & Shakir, 2013). Therefore, it is important to study the attitudes of the prospective teachers who are going to serve this noble profession of teaching.

**About the Review of Related Literature.** A. Guneyli & C. Aslan (2009) found a significant difference in favour of female prospective teachers in relation to the gender. No significant difference between attitude scores was observed in relation to the effects of class and socio-economic level.

N. Baloglu & E. Karadag (n.y.) showed that there was a noticeable statistical meaningful relationship between student teachers' attitudes toward the teaching profession and some of their preferred coping strategies with stress. M.I. Arif *et al.* (2012) found that the ratio of four personality traits (extraversion, agreeableness, conscientiousness, and neuroticism) was nearly same, but the ratio of openness personality trait was greater which means that the openness personality trait of prospective teachers was more dominant as compared to remaining four big personality traits.

There was a significant difference between male and female prospective teachers on their big five personality traits. Female prospective teachers got greater score on their big five personality trait instrument as compared to male prospective teachers. U. Kareem *et al.* (2012) reported that students enrolled in regular programmes showed high levels of professionalism as compared to distance education students.

Similarly, B.Ed. (Bachelor of Education) students enrolled in regular programmes showed the highest levels of professional attitude. S. Sharma & P. Dhaiya (2012) found that: (1) No significant difference between attitude of male and female B.Ed. students towards teaching profession; (2) Arts and Science B.Ed. students do not differ significantly in attitudes towards teaching; and (3) Female B.Ed. students were found to have most favourable towards teaching profession.

S.I.A. Shah & A.A. Thoker (2013) reported that there was significant difference between teaching attitude of government and private secondary school teachers, and government secondary school teachers have higher teaching attitude towards their teaching profession as compared to private secondary school teachers.

## **RESEARCH GAP, OBJECTIVES, HYPOTHESES, AND METHODS**

A careful perusal of above mentioned studies related to attitudes of prospective teachers towards teaching profession suggest that a lot of research has been conducted to investigate the attitudes of prospective teachers towards teaching profession, despite best efforts investigators could not find even a single study comparing the attitudes of Muslim and Non-Muslim prospective teachers towards teaching profession. It means there is a research gap. This motivated the investigators to carry out the present research study. This study is a humble attempt to fill in the research gap in this specific area.

The following were the objectives of the study: (1) to compare the attitudes of Muslim and Non-Muslim prospective teachers towards teaching profession; (2) to compare the attitudes of Muslim male and Non-Muslim male prospective teachers

towards teaching profession; (3) to compare the attitudes of Muslim female and Non-Muslim female prospective teachers towards teaching profession; (4) to compare the attitudes of Muslim Science and Non-Muslim Science prospective teachers towards teaching profession; (5) to compare the attitudes of Muslim Social Science and Non-Muslim Social Science prospective teachers towards teaching profession; (6) to compare the attitudes of Muslim and Non-Muslim prospective teachers studying in public B.Ed. or Bachelor Education institutions towards teaching profession; and (7) to compare the attitudes of Muslim and Non-Muslim prospective teachers studying in private B.Ed. institutions towards teaching profession.

In tune with the objectives of the present study, following hypotheses were formulated in null form: (1) "*There is no significant difference in the attitudes of Muslim and Non-Muslim prospective teachers towards teaching profession*"; (2) "*There is no significant difference in the attitudes of Muslim and Non-Muslim male prospective teachers towards teaching profession*"; (3) "*There is no significant difference in the attitudes of Muslim and Non-Muslim female prospective teachers towards teaching profession*"; (4) "*There is no significant difference in the attitudes of Muslim and Non-Muslim Science prospective teachers towards teaching profession*"; (5) "*There is no significant difference in the attitudes of Muslim and Non-Muslim Social Science prospective teachers towards teaching profession*"; (6) "*There is no significant difference in the attitudes of Muslim and Non-Muslim prospective teachers studying in public B.Ed. institutions towards teaching profession*"; and (7) "*There is no significant difference in the attitudes of Muslim and Non-Muslim prospective teachers studying in private B.Ed. institutions towards teaching profession*".

This study falls under the category of descriptive research. Survey method was adopted to carry out the present research work. Thus, in the present research study, "Descriptive Survey Design" was employed.

In the present study, all the Muslim and Non-Muslim prospective teachers of Aligarh District in India constitute the target population. In the present study, sample consisted of 360 prospective teachers: 200 Muslims and 160

Non-Muslim prospective teachers selected through purposive sampling technique.

For data collection "Teacher Attitude Inventory" (TAI) developed by S.P. Ahluwalia (2007) was used to measure the attitudes of prospective teachers. The Inventory consists of 90 statements. Responses were made on a five point scale and the response categories were assigned weights from 0 to 4. The tool was reliable and valid.

The investigators visited the selected institutions personally and administered the "Teacher Attitude Inventory" (TAI). The data were analyzed with the appropriate statistical measures to justify the objectives of the present study. The investigators employed Mean, SD (Standard Deviation), and t-test for the analysis of the data.

## DATA ANALYSIS AND INTERPRETATION OF RESULTS

The analysis of data was done in order to make inferences and generalizations about the population. Statistical Package for the Social Science (SPSS) Version 16 was used for the analysis of data. Hypotheses wise analysis is as follows:

In order to test Ho1, t-test was applied, as showed in table 1.

A close examination of table 1 shows that the t-value 1.108 is statistically not significant at .05 level. This means there is no significant difference in the attitudes of Muslim and Non-Muslim prospective teachers towards teaching profession. Therefore, the null hypothesis that "*there is no significant difference in the attitudes of Muslim and Non-Muslim prospective teachers towards teaching profession*" is accepted.

In order to test Ho2, t-test was applied, as showed in table 2.

A glance at table 2 shows that the t-value 1.646 is statistically not significant at .05 level. This means there is no significant difference in the attitudes of Muslim and Non-Muslim male prospective teachers towards teaching profession. Therefore, the null hypothesis that "*there is no significant difference in the attitudes of Muslim and Non-Muslim male prospective teachers towards teaching profession*" is accepted.

In order to test Ho3, t-test was applied, as showed in table 3.



**Table 1:**  
Showing the Comparison of Attitudes of Muslim and Non-Muslim Prospective Teachers towards Teaching Profession

Basis	N	Mean	SD	df	t-value
Muslim Prospective Teachers	200	262.92	24.28	358	1.108 *
Non-Muslim Prospective Teachers	160	259.68	31.30		

\* Not significant at .05 level

**Table 2:**  
Showing the Comparison of Attitudes of Muslim and Non-Muslim Male Prospective Teachers towards Teaching Profession

Basis	N	Mean	SD	df	t-value
Muslim Male Prospective Teachers	108	258.22	27.13	176	1.646*
Non-Muslim Male Prospective Teachers	70	251.81	22.37		

\* Not significant at .05 level

**Table 3:**  
Showing the Comparison of Attitudes of Muslim and Non-Muslim Female Prospective Teachers towards Teaching Profession

Basis	N	Mean	SD	df	t-value
Muslim Female Prospective Teachers	92	264.26	23.51	180	0.285*
Non-Muslim Female Prospective Teachers	90	263.17	28.12		

\* Not significant at .05 level

**Table 4:**  
Showing the Comparison of Attitudes of Muslim and Non-Muslim Science Prospective Teachers towards Teaching Profession

Basis	N	Mean	SD	df	t-value
Muslim Science Prospective Teachers	117	265.69	25.46	199	1.071*
Non-Muslim Science Prospective Teachers	84	262.08	20.64		

\* Not significant at .05 level

**Table 5:**  
Showing the Comparison of Attitudes of Muslim and Non-Muslim Social Science Prospective Teachers towards Teaching Profession

Basis	N	Mean	SD	df	t-value
Muslim Social Science Prospective Teachers	83	260.96	23.82	157	1.449*
Non-Muslim Social Science Prospective Teachers	76	254.97	28.28		

\* Not significant at .05 level

**Table 6:**  
Showing the Comparison of Attitudes of Muslim and Non-Muslim Prospective Teachers Studying in Public B.Ed. Institutions towards Teaching Profession

Basis	N	Mean	SD	df	t-value
Muslim Prospective Teachers Studying in Public B.Ed. Institutions	95	257.73	23.48	138	1.603*
Non-Muslim Prospective Teachers Studying in Public B.Ed. Institutions	45	251.00	22.53		

\*Not significant at .05 level

**Table 7:**  
 Showing the Comparison of Attitudes of Muslim and Non-Muslim Prospective Teachers  
 Studying in Private B.Ed. Institutions towards Teaching Profession

Basis	N	Mean	SD	df	t-value
Muslim Prospective Teachers Studying in Private B.Ed. Institutions	105	271.96	25.11	218	3.799 **
Non-Muslim Prospective Teachers Studying in Private B.Ed. Institutions	115	257.66	27.06		

\*\* Significant at .01 level

Table 3 clearly shows that the t-value 0.285 is statistically not significant at .05 level. This means there is no significant difference in the attitudes of Muslim and Non-Muslim female prospective teachers towards teaching profession. Therefore, the null hypothesis that “*there is no significant difference in the attitudes of Muslim and Non-Muslim female prospective teachers towards teaching profession*” is accepted.

In order to test Ho4, t-test was applied, as showed in table 4.

An inspection of table 4 clearly reveals that the t-value 1.071 is statistically not significant at .05 level. This means there is no significant difference in the attitudes of Muslim and Non-Muslim Science prospective teachers towards teaching profession. Therefore, the null hypothesis that “*there is no significant difference in the attitudes of Muslim and Non-Muslim Science prospective teachers towards teaching profession*” is accepted.

In order to test Ho5, t-test was applied, as showed in table 5.

An examination of table 5 clearly shows that the t-value 1.449 is statistically not significant at .05 level. This means there is no significant difference in the attitudes of Muslim and Non-Muslim Social Science prospective teachers towards teaching profession. Therefore, the null hypothesis that “*there is no significant difference in the attitudes of Muslim and Non-Muslim Social Science prospective teachers towards teaching profession*” is accepted.

In order to test Ho6, t-test was applied, as showed in table 6.

Table 6 clearly shows that the t-value 1.603 is statistically not significant at .05 level. This means there is no significant difference in the attitudes of Muslim and Non-Muslim prospective teachers studying in

public B.Ed. (Bachelor Education) institutions towards teaching profession. Therefore, the null hypothesis that “*there is no significant difference in the attitudes of Muslim and Non-Muslim prospective teachers studying in public B.Ed. institutions towards teaching profession*” is accepted.

In order to test Ho7, t-test was applied, as showed in table 7.

Table 7 clearly shows that the t-value 3.799 is statistically significant at .01 level. This means there is a significant difference in the attitudes of Muslim and Non-Muslim prospective teachers studying in private B.Ed. (Bachelor Education) institutions towards teaching profession. Therefore, the null hypothesis that “*there is no significant difference in the attitudes of Muslim and Non-Muslim prospective teachers studying in private B.Ed. institutions towards teaching profession*” is rejected.

Higher mean score of Muslim prospective teachers studying in private B.Ed. institutions than the Non-Muslim prospective teachers studying in private B.Ed. institutions indicate that Muslim prospective teachers studying in private B.Ed. institutions had a more favourable attitude towards teaching profession as compared to Non-Muslim prospective teachers studying in private B.Ed institutions.

So, the findings of the study are as follows: (1) No significant difference was found between the attitudes of Muslim and Non-Muslim prospective teachers towards teaching profession; (2) No significant difference was found between the attitudes of Muslim male and Non-Muslim male prospective teachers towards teaching profession; (3) No significant difference was found between the attitudes of Muslim female and Non-Muslim

female prospective teachers towards teaching profession; (4) No significant difference was found between the attitudes of Muslim Science and Non-Muslim Science prospective teachers towards teaching profession; (5) No significant difference was found between the attitudes of Muslim Social Science and Non-Muslim Social Science prospective teachers towards teaching profession; (6) No significant difference was found between the attitudes of Muslim and Non-Muslim prospective teachers studying in public B.Ed. institutions towards teaching profession; and (7) A significant difference was found between the attitudes of Muslim and Non-Muslim prospective teachers studying in private B.Ed. institutions towards teaching profession. More specifically Muslim prospective teachers studying in private B.Ed. institutions had a more favourable attitude towards teaching profession as compared to Non-Muslim prospective teachers studying in private B.Ed. institutions.

## CONCLUSION

Teachers are called nation builders, their role is most important for social, economic, and political transformation of an equitable and just society. A good principal, magnificent building, sound infrastructure, and good curriculum are useless, if the teachers in any institution are not with positive attitude towards teaching profession. Teaching is a very respectable and pious profession, but even then not all the teachers who are in this profession like it.

Many prospective teachers join this profession not by their choice, but simply by chance, some join this B.Ed. (Bachelor Education) programme just to spend one year, some join it if they do not get admission in their chosen course. This is the reason why they do not develop positive attitude towards teaching, because of the simple reason that teaching is not their first choice, rather this is their last choice.

Therefore, through this paper, it is suggested that they must develop positive attitude towards teaching profession if they really want to excel in this field. Attitudes towards profession are usually related with enjoying the profession, complete dedication to this

coveted profession, and giving it more than hundred percent. Prospective teachers must develop proper and positive attitudes towards their profession, so that they can bring about a positive change in the life of their students.

This study will help in the selection of those students for teaching profession who held favourable attitude towards teaching. This research study would bring about a substantial change in the attitudes of Muslim and Non-Muslim prospective-teachers community towards teaching in particular and prospective teachers in general.

Findings of the study have some implications for practice and for further research. One important implication of this study is the finding that a significant difference was found between the attitudes of Muslim and Non-Muslim prospective teachers studying in private B.Ed. institutions towards teaching profession. More specifically, Muslim prospective teachers studying in private B.Ed. institutions had a more favourable attitude towards teaching profession as compared to Non-Muslim prospective teachers studying in private B.Ed. institutions.

Therefore, Non-Muslim prospective teachers studying in private B.Ed. institutions need to develop positive attitudes towards teaching profession. This study may be helpful as an introduction to the complex task of finding the "best" prospective teachers. The fact that a teacher has to have both knowledge and certification to be a teacher, along with certain personality characteristics, make the search for qualified teachers for Indian teacher training institutions more easier. Perhaps more studies should be carried on to examine more carefully what are the factors that might have caused the difference between the attitudes of Muslim and Non-Muslim prospective teachers studying in private B.Ed. institutions towards teaching profession.

The investigators believe that present research study comparing the attitudes of Muslim and Non-Muslim prospective teachers and its correlations will be much helpful in identifying those factors that govern the behaviour of the Muslim and Non-Muslim prospective teachers. It will also be useful in developing the predictive measures to be

employed in selection of candidates for teacher training programme.

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## The Geography Teacher Practices in Implementation of Formative Assessment: A Case Study

**ABSTRACT:** Teachers need the necessary skills and further awareness and understanding in order to implement formative assessment activities effectively in their T&L (Teaching & Learning) process. Formative assessment is an ongoing process during the process of teaching and learning. A proper implementation of the true concept of formative assessment will have positive impacts on students' learning and motivation. This paper reports the findings of a qualitative study undertaken to determine whether formative assessment is accurately implemented as per recommendation of experts in the teaching and learning process of the subject of geography. Data was obtained through classroom observations and interviews with two Geography teachers. Fieldwork was done at a secondary school in the state of Perak, Malaysia. Overall, the findings of the study show both teachers practises formative assessment as recommended by experts. Both teachers also displayed outstanding performance in their application of some of the concept of formative assessment. However, there are also rooms for improvements especially in the area of implementation of formative assessment activities. Therefore, all concerned parties must sit together to discuss necessary steps that must be taken to ensure the implementation of high quality formative assessment. Efforts must be undertaken to ensure that teachers are properly educated of the proper concept of formative assessment and its implementation in the classroom.

**KEY WORDS:** Formative assessment, the implementation of formative assessment in teaching and learning process, formative assessment in geography.

### INTRODUCTION

Formative assessment occurs every day in teaching and learning process. It is carried out continuously, integrated into the teaching and learning with a view of measuring the students' level of understanding. It is emphasized to improve students' learning with the hope to build on the wider potentials of the students (Ishak, 2011).

To ensure the implementation of formative assessment runs smoothly and accurately, teachers need to understand the concept of formative assessment as a whole (Tomlinson, 2008). Weaknesses and constraints in the application of formative assessment are due to teachers' insufficient understanding of the concept and theory of formative assessment

(Black & Wiliam, 1998; and William & Leahy, 2007).

A study by T. Eckhout *et al.* (2005) found that there was a need for teachers to be trained in classroom-based formative assessment practices. The result of their study indicated that training can increase teachers' confidence in different aspects of classroom assessment, including developing learning targets, developing and using different types of assessment, involving students in assessment, and communicating effectively about students' achievement.

Based on the objective of providing a clear picture of the whole concept of formative assessment, experts have produced a variety of concepts, approaches, methods, strategies,

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*About the Authors:* Suzana Abd Mutalib is a Student at the Faculty of Education UKM (National University of Malaysia); and Dr. Jamil Ahmad is a Lecturer at the Faculty of Education UKM, Bangi, Selangor Darul Ehsan, Malaysia. For academic purposes, the authors can be contacted via e-mails at: [suzanaalea@yahoo.com.my](mailto:suzanaalea@yahoo.com.my) and [jamil3191@yahoo.co.uk](mailto:jamil3191@yahoo.co.uk)

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and techniques for implementing formative assessment in the teaching and learning process. Specifically for this study, the concepts, approaches, methodologies, strategies, and techniques of implementing formative assessment are included for the purpose of obtaining implementation guidelines which are more practical and informative in terms of characteristic. These include as follows:

*First*, clearly stating the learning standards to students (Black & Wiliam, 1998; Laud *et al.*, 2010; Stiggins, 2001 and 2002; and Stiggins & Chappuis, 2006).

*Second*, using the pre assessment strategy before beginning the teaching and learning process to diagnose the needs of the students (McTighe & O'Connor, 2005).

*Third*, using appropriate formative assessment designs or techniques or activities to assess student learning. The technique used must be appropriate to measure the students achievement based on the learning standard. The level of activities also must be appropriate to the learning standard and students' ability (Stiggins & Chappuis, 2006; and Brookhart, 2007).

*Fourth*, provide the students with effective feedback to help enhance their learning (Black & Wiliam, 1998; Overall & Sangster, 2006; and Hall, 2007).

*Fifth*, encourage self-assessment and peer assessment, especially to help achieve the learning objectives (Black & Wiliam, 1998; Stiggins, 2002; McTighe & O'Connor, 2005; and Laud *at al.*, 2010).

*Sixth*, proper management of teaching and learning time is important to make sure the application of formative assessment is smooth and effective (Brookhart, 2007).

*Seventh*, encourage student-centred activities (Cizek, 2010) and active participation of students in all activities (Crooks, 1988; Black & Wiliam, 1998; Scherer, 2005; Stiggins & Chappuis, 2006; and Stiggins, 2008).

*Eighth*, use information derived from formative assessment activities to decide what to do next during the process of teaching and learning (Stiggins, 2008; Phelan *at al.*, 2009; and Laud *at al.*, 2010).

*Ninth*, practise effective communication (Stiggins & Chappuis, 2006; and Stiggins, 2008).

## **STATEMENT OF THE PROBLEM, OBJECTIVE, RESEARCH QUESTION, AND METHODS**

One of the results of the transformation exercise on the national education system in Malaysia recently has been the change in the national curriculum: from the integrated curriculum to the standard-based curriculum. The changes are being implemented in stages beginning with secondary one in 2011. The transformation brings about certain changes to the curriculum content and practices, including the assessment system.

The change from summative assessment, which emphasizes tests and examinations, to formative assessment advocated by the concept of School Based Assessment (SBA) has attracted many complaints from teachers, especially those teaching secondary 1 and secondary 2. There appears to be a feeling of confusion among teachers in conducting formative assessment during the process of T&L (Teaching & Learning).

The age old practice of teaching and assessing pupils separately still holds sway among teachers who consider practices of formative assessment as something new and should be implemented separately even though all these concepts, approaches, methodologies, strategies, and techniques of implementing formative assessment have always been part of their teaching and learning (T&L) practices (Black & Wiliam, 1998; Hall & Burke, 2004; and Brookhart, 2007).

A research conducted by Mohamad Azhar & Shahrir Jamaluddin (2007) found that teachers generally use formative assessment activities as a teaching technique and not as an assessment technique. This is supported by Suzana Abd Mutalib & Jamil Ahmad (2012) who noted that teachers tend to confuse and mix up formative assessment activities with T&L activities. Zamri Mahamod & Nor Razah Lim (2011) found that teachers' use of formative assessment activities, especially questioning techniques to enhance students learning, was still low.

Teachers do not realize that they are already practising formative assessment in their T&L process. In actual fact, they are applying the concept, approaches, methodologies, strategies,

and activities of formative assessment every time they evaluate the status of their students' level of understanding against the stated objectives. The same is also true when they use the information derived from practices of formative assessment to help them modify their instructions and to plan the next lesson.

More information with regards to formative assessment practices is needed to alleviate teachers' confusion and reservation in conducting formative assessment in the classroom. This is important, especially because formative assessment activities can also function as activities for the T&L process. Teachers need "hands-on" experience on the use of formative assessment practices to guide them in their effort to conduct formative assessment successfully.

Presently, clear guidelines are not always readily available to teachers to help them distinguish between formative assessment practices and the process of T&L. Teachers are sometimes not aware that both activities can move simultaneously, in tandem and are embedded to one another (Stiggins & Chappuis, 2006; Azhar & Jamaluddin, 2007; and Brookhart, 2007). The distinction between the two, as asserted by D. Fisher & N. Frey (2009), is that formative assessment practices are used after the content and concept of the subject have been explained.

The objective of this study is to examine the practices of formative assessment in the teaching and learning of Geography in secondary schools before the implementation of the standard-based curriculum for secondary three.

The study was conducted to clarify the question "How do teachers implement formative assessment practices during the process of T&L in the subject of Geography in secondary three?"

This study used a qualitative case study approach to address the research question posed. The method was chosen based on the desire to understand the phenomenon in depth (Yin, 2003) and to get a clear picture (Yusoff ed., 2004) of the application of formative assessment practices in the subject of Geography for secondary 3. One secondary school, located in Perak, Malaysia was selected as the site for the study.

The selection of the participants was done through purposive sampling to address the need of the researchers to explore, learn, and understand the phenomenon effectively. For this to occur the participants selected must possess good knowledge and information regarding the phenomenon being studied (Merriam, 2009). Selecting participants with these characteristics also helps to improve the credibility of the findings (Patton, 2002).

Two Geography teachers were chosen as participants in this study. They were chosen based on strict criteria: the participants must have at least more than ten years of teaching experience; must possess reliable and excellent knowledge about formative assessment; and must possess current and up to date information on the use of formative assessment techniques.

Data was collected through non-participant observations and interviews conducted in the classroom. This was to provide a true picture of the application of formative assessment practices in the T&L process (Yusoff ed., 2004). The two techniques were chosen as data obtained from these two techniques could complement and strengthen each other (Yusoff ed., 2004; Bogdan & Biklen, 2007; and Merriam, 2009). Information that was not clear or difficult to obtain during observations could easily be obtained through interviews (Patton, 1987).

Data was analyzed in two stages. The first analysis was done during the field work; and, the second, a content analysis was carried out after the completion of the field work. Manual frequency calculation technique was used to establish the patterns of formative assessment techniques often used by the participant (Murad Saleh, 2003). A Matrix is used for inference analysis. The Findings are descriptive with regards of practices of formative assessment (Lebar, 2009) but cannot be generalized outside of the context, participants, and the study.

## **THE FINDINGS AND DISCUSSIONS**

The practices of formative assessment being practiced by both teachers are based on the guidelines suggested by experts in the field. These include:

### ***About the Use of Pre-Assessment Strategy.***

Oral questioning activities which functioned as pre-assessment strategy were carried out by both participants to commence their T&L (Teaching & Learning) process. Open ended and closed ended oral questions were presented to students.

Teacher R asked a few questions connected to the previous lesson in order to gauge students' level of understanding of the concept of contour. Teacher R connected the students' answers to the topic they were about to learn. Teacher R started the T&L process by drawing three types of contours on the board. These are contour with lines closely grouped together, contour with lines sparsely grouped together, and contour with lines both closely and sparsely grouped together in alternating arrangement. Using the drawing, teacher R conducted oral question activities with the students.

Teacher R: *"If the lines are close to each other, then the slope is ..."*

Students: *"Steep"*.

Teacher R: *"If the lines are far from each other, the slope is ..."*

Students: *"Gentle"*.

Teacher R: *"If some of the lines are close to each other, followed by lines far from each other, then close to each other again, what type of slope is it?"*

Students: *"Steps"* (classroom observation note, 19/9/2013).

Satisfied with the students' answers, teacher R proceeded to inform the students the topic of the lesson they were about to learn. *"OK, today we are going to identify geographical shapes based on contour lines"*.

Teacher S also used oral questioning technique as an induction set to start the T&L (Teaching & Learning) process. Teacher S started by drawing two points on the board which were marked A and B. Teacher S then asked the students four questions in a row without the students being given the chance to respond.

Teacher S: *"What is the bearing from A to B?; How do we calculate the bearing?; Where do we start measuring?; and Is it point A or point B?"*

Only after the fourth question did, the students get the chance to respond, *"Point B"*.

Teacher S then asked another question followed by a respond from the students, *"Where do we put*

*the compass points?"*

Students: *"B"* (classroom observation note, 20/9/2013).

Teacher S then drew the compass points on point B. Then, teacher S continued with the oral questioning activity, asking the students the location of North, South, East, and West on the compass point, while pointing to the drawing on the board. Teacher S then proceeded to mark the points on the board based on the students' answers. After that, teacher S asked more questions punctuated by students' replies.

Teacher S: *"Where do we start measuring? N, S, E, or W?"*

Students: *"S"*

Teacher S: *"S to E or S to W?"*

Students: *"S to E"* (classroom observation note, 20/9/2013).

Teacher S confirmed the students' answers and demonstrated the measuring process which resulted in the reading of  $S47^{\circ}T$ . Teacher S then informed the students that for the lesson they were going to learn how to calculate bearings.

***About Design of Assessment.*** Through observation, it was discovered that both teachers utilized five different formative assessment techniques in their T&L (Teaching & Learning) processes. Four of the techniques, namely: seatwork, exercises, observations, and homework, were conducted after the teachers had given explanation of the concepts and contents of their lessons. The other technique, oral questioning technique, was used throughout, including during the stage of the lessons where both teachers were giving explanations of the concepts and contents of their lessons.

The seatwork and exercise techniques were used to assessed students' geography skills, where they were required to independently draw cross section of a geography location based on contour lines, calculate heights, and bearing on a topography map, calculate distance and size of a place based on the scale on a map, organize data, draw and complete different graphs, and interpret maps.

The activities under these two techniques were set at a moderate to high levels which



require application, analysis, synthesis, and evaluation skills. First students were involved in seatwork activities. After the teachers were convinced that the students have mastered the skills, the students were then given exercises. During these activities, both teacher R and teacher S conducted observations to assess students' level of understanding and mastery of the concepts and contents of the lessons. Homework was then given as extra exercise when it was felt that the students have not mastered the concept and content of the lesson sufficiently.

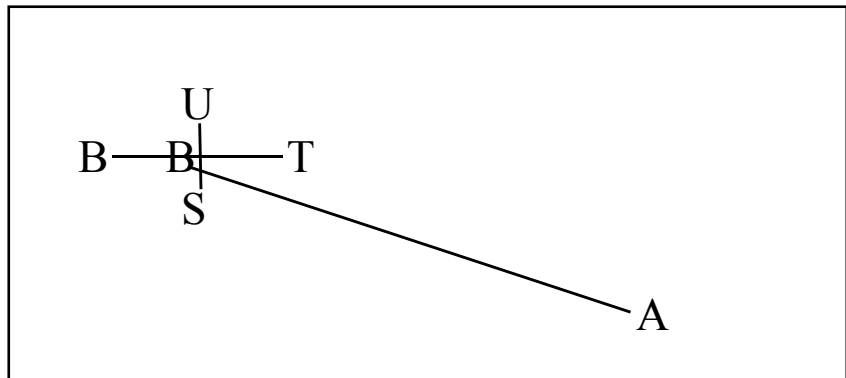
Oral questioning was conducted at the beginning, middle, and end of the lesson by both teacher R and teacher S. While giving explanation on the concept and content of the lessons, both teacher R and teacher S asked oral questions to gauge students' level of understanding. They did this by asking questions designed to connect the concepts and contents of their lessons to the students' previous knowledge from the previous lessons.

During the middle stage of their lessons, both teacher R and teacher S used oral questioning to help make the flow of their lessons smoother. For example, teacher S started the seatwork activity by giving instructions and asking oral questions.

Teacher S: "Draw two points, one slightly above the other, and mark this point as A. Mark the lower point as B".  
Teacher S then walked around the class observing the students completing the task. Satisfied that all the students had managed to complete the task successfully, teacher S then asked three oral questions one after another.  
"OK, now calculate the bearing from A to B. Where do we put the compass point?"  
"Is it on point A or point B?"  
The students responded with "B" (classroom observation note, 20/9/2013).



Picture 1:  
Geographical Shapes Based on Contour Lines



Picture 2:  
How to Calculate Bearings

Teacher S then proceeded by giving instruction for students to start with the task of drawing the compass point on point B. This was followed by more oral questions punctuated by students' responses.

Teacher S: "What do we do after that?"  
Students: "Connect the dots"  
Teacher S: "Then what do we do?"  
Students: "Put the projector on point B"  
Teacher S: "Now, can you count the bearing?"  
(classroom observation note, 20/9/2013).

While doing this, teacher S moved around the class to observe how the students carry out the task. Teacher S made immediate corrections and explanations whenever students made mistakes while completing the task, or when students gave different answers to the question.

Teacher S: "Ok, some of you get 310, while others get 320. This is determined by the position of the points you drew. Do you understand?"  
Students: "Yes" (classroom observation note, 20/9/2013).

Teacher S then presented other questions for the seatwork activity.

Teacher R also started the seatwork by giving instruction which was immediately carried out by the students.

Teacher R: "OK, now I want you to draw the contour lines. Draw the outside lines first. Make it a big, oval shape".

Teacher R: "Now draw the inside lines. Draw three lines close together on the right hand side but far apart on the left hand side" (classroom observation note, 19/9/2013).

Teacher R also asked oral questions to check whether students had completed the task successfully before proceeding with further instruction related to the task. Teacher R said, "Now draw a line across the middle. Mark the ends A and B"; and "Now draw a cross section" (classroom observation note, 19/9/2013).

Teacher R then proceeded with oral questions to make sure the students had understood the concept and content of the lesson. Students' responses to each questions indicated their level of understanding of the lesson.

Teacher R: "What is the shape of the landscape? Anybody knows?"

Students: "Slope"

Teacher R: "Ok. What is the value of the outside contour lines? Is it high or low?"

Students: "Low"

Teacher R: "Ok, so how many?"

Students: "15 metres"

Teacher R: "What is the value between the contour lines?"

Students: "15 metres"

Teacher R: "Ok, what is the value of the second contour line?"

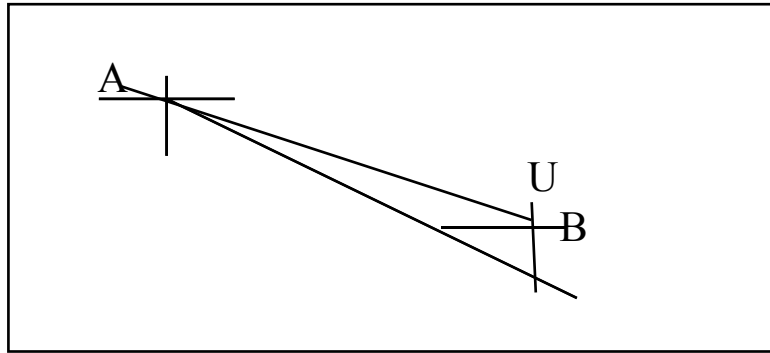
Students: "30 metres"

Teacher R: "Ok, how about the third contour line?"

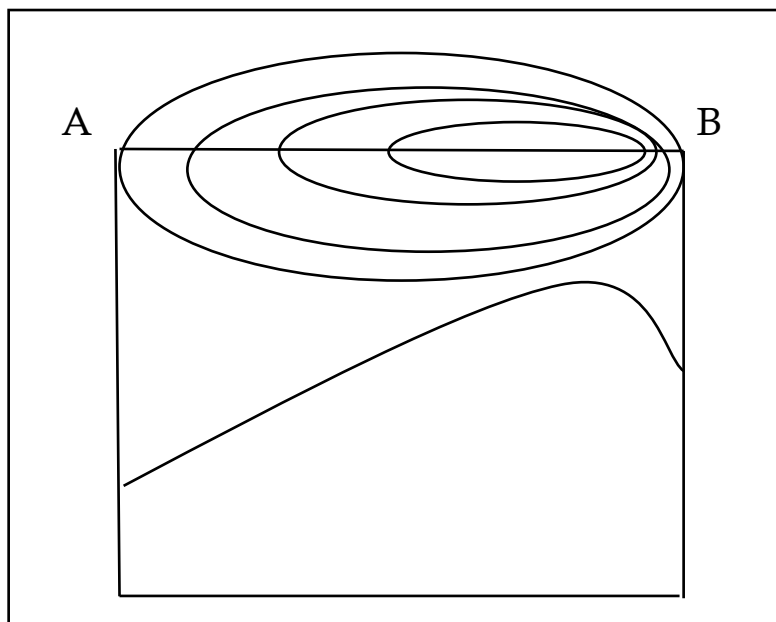
Students: "45 metres"

Teacher R: "Ok, what is the value of the fourth contour line?"

Students: "60 metres" (classroom observation note, 19/9/2013).



**Picture 3:**  
Count the Bearing



**Picture 4:**  
Learning the Contour Line

**About the Feedback.** Both teacher R and teacher S frequently gave immediate feedback to their students, either orally or in written form on the board. Observations carried out while the students were completing the tasks for seatwork and exercise provided them with information on the status of the students' level of understanding and mastery of the skills related the topic of the day. This information was used to rectify any misunderstanding among the students through feedback. This was done by re-teaching the concept using different techniques, demonstration, or giving extra guidelines.

Through oral questioning activities, both teacher R and teacher S provided feedback to their students very frequently that the activities became a dialog between the teachers and the students. While teaching the sub-topic of interpreting the topography map, teacher R provided feedback by connecting the topic to the immediate surrounding and the students' general knowledge.

Teacher R: "If want to see an example of undulating landscape, look at the land around our school. For example, look at the Heawood area behind the school. That is undulating. What can you find there?"

Students: "Oil palm and rubber trees"

Teacher R: "Why oil palm and rubber? What type of soil do we have over there?"

Students: "Literate"

Teacher R: "Ok. Are any other reasons why it is suitable to plant rubber and oil palm over there?"

Students: "Good drainage"

Teacher R: "Good. Rubber and oil palm need good drainage. Do we plant oil palm and rubber in swamps?"

Students: "No"

Teacher R: "Why?"

Students: "The drainage is not good" (classroom observation note, 19/9/2013).

Teacher R provided feedback as guidelines after the students had completed the task of calculating the size of a paddy field in a topography map.

Teacher R: "Ok. We have learnt how to calculate the size of an area on a topography map? Anybody still do not understand how to do it?"

(No response from the students)

Teacher R: "Ok. In order to calculate the size, we must do it step by step. It is easy. First, we count all the squares. Second, we calculate the size of a square. Third, we multiply the size of the square to the number of squares available" (classroom observation note, 19/9/2013).

**About the Self and Peer Assessment.** In order to solve the task given for seatwork, exercise, and homework, students could assess themselves to identify their weaknesses and misunderstanding related to the concepts and contents of the lesson. They could interpret their own achievement, whether or not they have mastered the knowledge and skills presented by the teacher.

During the study, it was evident that both teacher R and teacher S assisted the students

to do self-evaluation. They did this by frequently asking questions to gauge students' level of understanding. These were open questions which allowed the students to assess themselves. These include:

"Do you understand?"

"Anybody does not understand?"

"Is everything ok?"

"Is it right or not?"

"Are you able to do it?"

"Does everyone understand?" (classroom observation notes, 19/9/2013 and 20/9/2013).

Both teacher R and teacher S also frequently asked those students who have mastered the knowledge and skills to assist other students who had not done so. Through the oral questioning activities, the students were able to assess their own level of understanding apart from helping their friends to better understand the concept and content of the lesson.

**About the Time Management.** During the study, it was clear that both teacher R and teacher S maximize the time use for teaching of concepts and contents of their lessons, while conducting formative assessment activities through oral questioning, seatwork, exercise, and observations. The time used for teaching of concepts and contents and the time used for formative assessment activities were adjusted in accordance to the length of time available for the lesson. In a two period lesson (80 minutes), the percentage of time allocated for formative assessment activities was higher compared to a single period lesson (40 minutes).

**About the Students Centred Activities.** Through observation, it was established that both teacher R and teacher S actively involved students in the T&L (Teaching & Learning) process. In all the activities that the students had to undertake, both teacher R and teacher S acted as observers and facilitators to ensure the activities proceeded smoothly as planned. From the nine observations carried out, all the activities conducted were students centred and the students were actively involved.

**About the Use of Information from the Assessment Activities.** Both teacher R and teacher S used information derived from the

formative assessment activities to provide feedback to the students and modify the T&L (Teaching & Learning) process to improve students understanding. While the students were involved in seatwork and exercise, both teacher R and teacher S moved around the class making observations of the students' progress. Both then provided necessary feedback accordingly, either to individuals or the whole class. At times, both teacher R and teacher S provided feedback by re-teaching the concepts and contents, demonstration, or simply through oral explanation.

**About the Practising Effective Communication.** Both teacher R and teacher S practised effective two ways communication. For example, all instructions and questions were given verbally and students were given plenty of opportunities to respond, which they did. All responses given by the students were also responded to by both teacher R and teacher S, and clearly this had a positive effect on the students. This type of two ways communication is effective, easy to implement and especially suitable when there is a time constraint, such as teaching a difficult concept in a single or double period lesson.

The formative assessment practices of both teacher R and teacher S were in accordance with good practices of formative assessment suggested by experts in the field. However, there are still rooms for improvements, especially in the area of implementation for both teacher R and teacher S. These include:

*First*, specify the learning objectives, the students have to achieve. These objectives must be reflected in the content of the lesson as well as the teaching and learning activities as a whole. Even if the objectives are not overtly stated, the students must be able to figure out these objectives through the learning activities conducted. They must have a sense of direction in terms of what they are supposed to learn and master.

*Second*, both teacher R and teacher S should utilize the pre-assessment strategy more effectively. This is because pre-assessment strategy enables the teacher to identify students' weaknesses earlier and this gives him the opportunity to take the necessary steps to solve the problem during the lesson (McTighe

& O'Connor, 2005). During the study, even though both teacher R and teacher S utilized the pre-assessment activities, the potential of the strategy was not fully exploited. Not enough time was spent on the activities to allow problems to be really identified and dealt with accordingly in the T&L (Teaching & Learning) process that proceeded.

*Third*, the formative assessment activities must be suitable to the learning objectives, especially with regards to the level of the questions and tasks given (Black & Wiliam, 1998; Stiggins, 2001; and Fisher & Frey, 2009). During the study, even though the questions and tasks given for oral question activities, seatwork, exercises, and homework were largely relevant and helpful to students, there was perhaps a need to pay attention to the level of these questions and tasks. There was not enough variety in terms of the cognitive level requirement to answer the questions and tasks given. Most of the questions and tasks were too straight forward and did not present too much of a challenge to the students.

*Fourth*, both teacher R and teacher S conducted formative assessment on individual students to assess students' level of understanding as suggested by D. Fisher & N. Frey (2010). Both the T&L (Teaching & Learning) process and the formative assessment activities conducted were student centred in nature (Cizek, 2010); and students were actively involved. This was commendable as students' active involvement in the T&L process would help them to understand the lesson better (Crooks, 1988; Black & Wiliam, 1998; Scherer, 2005; and Stiggins & Chappuis, 2006). Also, the oral questioning activities help to improve the students inter and intra personal skills (Hamm & Adams, 2009).

However, both teacher R and teacher S did not provide individual students with enough opportunities to provide feedback on the tasks they had completed. Even though the tasks and questions were given to students to be completed individually, both teacher R and teacher S only elicited answers from the class as a whole instead of individual students. This means some of the students who may have had problems with the tasks and questions were not identified; therefore, denying them

the opportunity of being given extra help and attention by the teachers.

*Fifth*, effective communications like asking questions and giving and following instructions provide teachers with the opportunity to respond to students' problem (Black & Wiliam, 1998; and Stiggins & Chappuis, 2006). Effective communication also allows students to provide feedback regarding what they have mastered. During the study, both teacher R and teacher S practised effective communication, but there are rooms for improvement in terms of implementation. Both teacher R and teacher S could probably have spent more time on this stage to really be sure of the students' real problem and understanding.

## CONCLUSION

With respect to the finding, it can be concluded that teachers need the necessary skills and further awareness and understanding in order to implement formative assessment activities effectively in their T&L (Teaching & Learning) process. Data from the study indicates that there are rooms for improvements, with teachers' insufficient understanding and awareness of the importance of formative assessment as a whole affecting the effectiveness of implementation.

In relation to the study, apart from being a significant addition to previous studies on formative assessment, it has contributed significantly to the literature of formative assessment, especially in Malaysia, where such materials are urgently needed. There is a real requirement for studies on formative assessment to be conducted in Malaysia, in order to expose teachers to the concept. This is especially important as the School Based Assessment (SBA), being implemented by the Ministry of Education in stages beginning with secondary one in 2012, is based on the concept of formative assessment.

The study has also significantly provided a true picture of the importance and implementation of formative assessment in the classroom and how formative assessment can easily be integrated as part of the T&L process. This should dispel the notion among many teachers that formative assessment is difficult to implement and is nothing more than an

extra burden to teachers. Teachers should now be aware that when they apply the concept of formative assessment in their T&L process, they indirectly help to improve the quality of students learning.

Lastly, teachers must be aware of the importance of implementing formative assessment properly based on proper guidelines to ensure the assessment is of high quality and validity. This is very important because such assessments are capable of detecting changes in students' academic achievements (Stiggins, 2008). Therefore, all concerned parties must sit together to discuss necessary steps that must be taken to ensure the implementation of high quality formative assessment. Efforts must be undertaken to ensure that teachers are properly educated of the proper concept of formative assessment and its implementation in the classroom.

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# TAWARIKH

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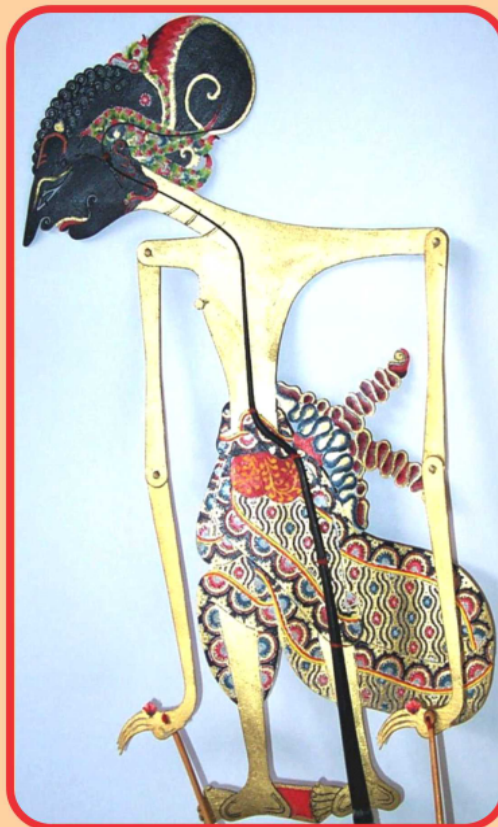
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One of the ASPENSI (Association of Indonesian Scholars of History Education)'s agendas is not only publishing the scholarly journals but also attending the workshop and conference. Showing in the picture is Andi Suwirta, as Chairperson of ASPENSI and Senior Lecturer of UPI (Indonesia University of Education) with his colleagues from Southeast Asian countries, in joining the Workshop and Symposium on ASEANness Citizenship Education in Nagoya University, Japan, on February 20-23, 2014. Pictures from L to R are: Souphany Heuangkeo of Lao, Sim Boon Yee Jasmine of Singapore, Sumlee Thongthew of Thailand, Gian Tu Trung of Vietnam, Andi Suwirta of Indonesia, Seng Sary of Cambodia, Kamaraguru Ramayah of Malaysia, Sallimah Salleh of Brunei Darussalam, and Jerick C. Ferrer of the Philippines.

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